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# Wisconsin Timber Industry—An Assessment of Timber Output Trends

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# FOREWARD

This Bulletin discusses recent Wisconsin forest industry trends and contains the results of a detailed study of forest industry, roundwood production, and associated primary mill wood and bark residue in Wisconsin in 1981. Such detailed information is necessary for intelligent planning and decisionmaking in wood procurement, forest resource management, and forest industry development. Likewise, researchers need current forest industry and roundwood information for planning projects.

Special thanks are given to the primary wood-using firms, households, and loggers that supplied information for this study and to the Wisconsin Department of Natural Resources foresters who canvassed these respondents. Their cooperation is greatly appreciated.

Quantities shown may vary slightly from one table to another because of rounding differences, but these differences are insignificant.

The last detailed study of all roundwood product output was in 1967; the last detailed study of all roundwood product output, except fuelwood and commercial posts, was in 1973. Most comparisons in this report are with the 1967 and 1973 study results.

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# WISCONSIN TIMBER INDUSTRY—AN ASSESSMENT OF TIMBER OUTPUT TRENDS

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## HIGHLIGHTS

- Wisconsin primary wood-using mills (excluding treating plants) imported 19 percent of their roundwood requirements in 1981.
- Roundwood production climbed to 395.3 million cubic feet in 1981 from 181.3 million cubic feet in 1967.
- Roundwood production in 1981 was at least 68 percent higher in each Survey Unit than in 1967.
- Fuelwood accounted for one-third of the roundwood harvest compared to one-eighth of the harvest in 1967.
- Aspen, red oak, and elm, the leading species cut, furnished 54 percent of the total harvest.
- Three-fourths (79 percent) of the roundwood cut came from private land.
- Wisconsin produced a record high 2.39 million cords of pulpwood in 1981. This record was broken in 1983 when production was 2.47 million cords based on the North Central Station's annual study of pulpwood production.
- Wisconsin pulpmills procured 26 percent of their wood requirements from out-of-State, down from 38 percent in 1973.
- Saw log production rose from 273 million board feet in 1967 to 387 million board feet in 1973 to 491 million board feet in 1981.
- Principal saw log species were red oak, aspen, hard maple, elm, white pine, and white oak.
- Average lumber output per sawmill rose 13 percent between 1973 and 1981.
- Wisconsin cut 7 percent (27.3 million board feet) of the U.S. hardwood veneer-log harvest.
- Central and Southeast Wisconsin supplied one-half of the 1,916,000 cords of fuelwood cut from roundwood. Another 250,000 cords were primary wood-using mill residue from throughout the State.
- More than half (52 percent) of the roundwood fuel was red oak and elm.
- Rural woodland supplied 78 out of every 100 cords of roundwood fuel.
- Logging residue generated in 1981 was estimated to be the equivalent of 1,353,000 cords of pulpwood, enough to supply five, 500-ton/day pulpmills for 1 year.
- Ninety-six percent or more of each residue class (coarse, fine, bark) generated at Wisconsin primary mills was used.

## PRIMARY FOREST INDUSTRY—ROUNDWOOD PRODUCTION

On a volume of wood-used basis, pulpmills dominate Wisconsin forest industry; but sawmills far outnumber any other mill category. Of 663 primary mills operating in 1981, 613 were sawmills. The total active (operating) mill population rose from 583 in 1973 but declined from 898 in 1967. Sawmills accounted for all of the active mill increases since 1973 and all mill sizes (small, medium, and large) participated in the gains. However, the major numerical increase was in small sawmills cutting less than 1 million board feet annually. The rise in the population of small sawmills reversed a two-decade decline in that size class but may prove to be a temporary reversal. The increase in the number of

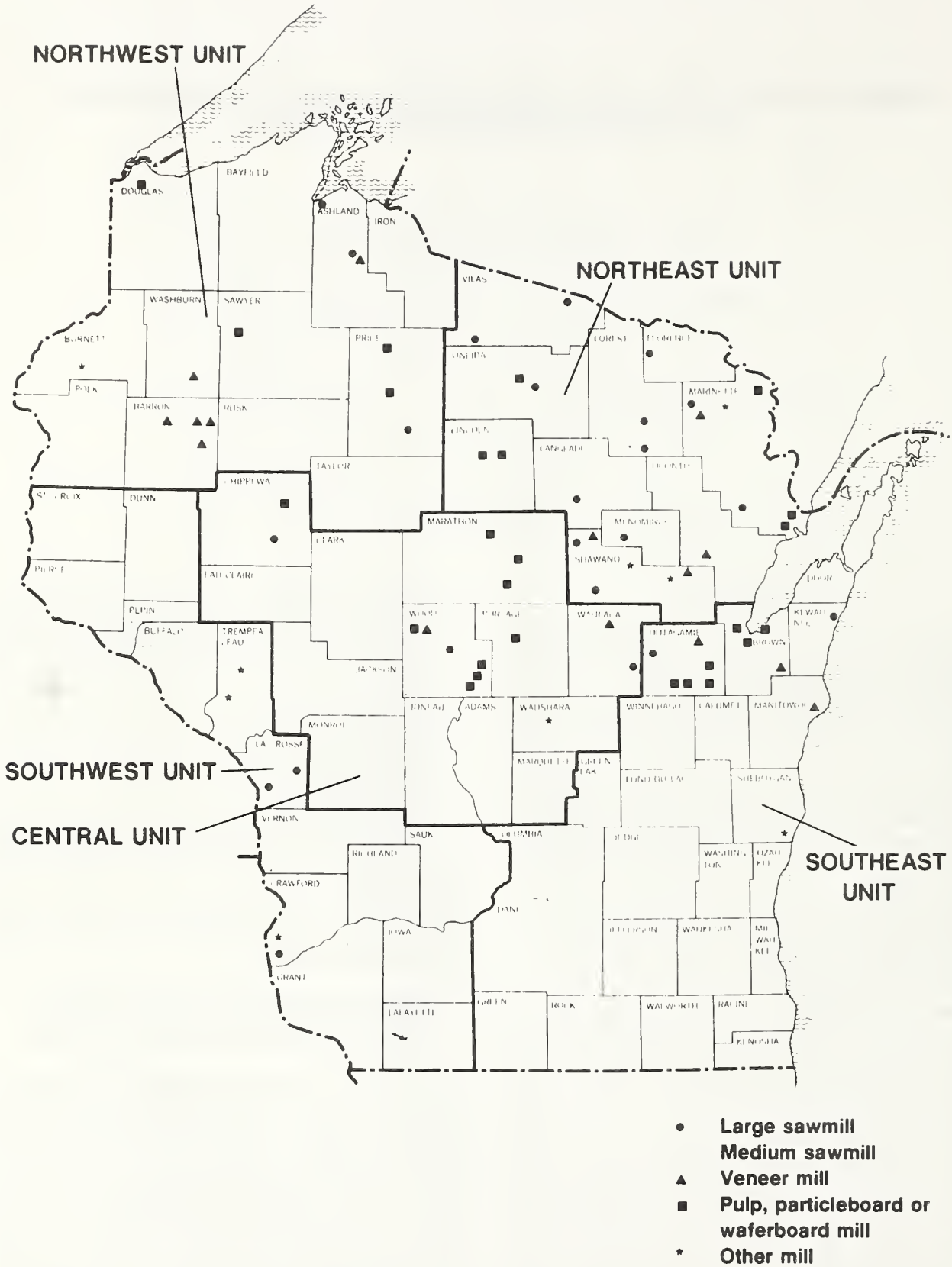
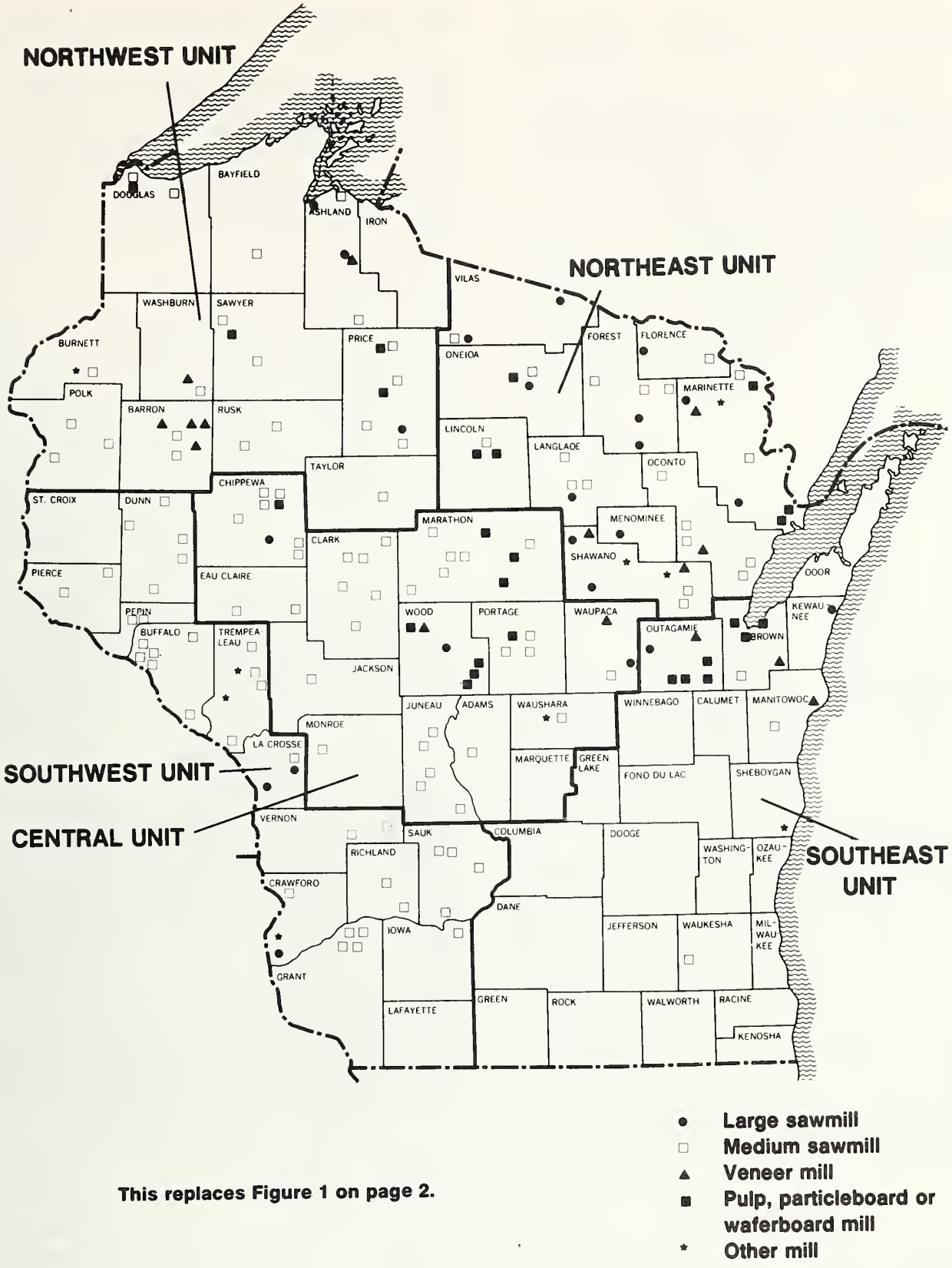



Figure 1.—*Active primary wood-using mills and Forest Survey Units in Wisconsin, 1981. Sawmills are classed by volume of lumber produced in 1981: large = 5 million board feet or more; medium = 1 to 4.999 million board feet (smaller sawmills not shown). Forest Survey Units are the geographic areas used by the Forest Inventory and Analysis Project to report periodic inventories and use of the Nation's forest resources.*




**This replaces Figure 1 on page 2.**

Figure 1.—*Active primary wood-using mills and Forest Survey Units in Wisconsin, 1981. Sawmills are classed by volume of lumber produced in 1981: large = 5 million board feet or more; medium = 1 to 4.999 million board feet (smaller sawmills not shown). Forest Survey Units are the geographic areas used by the Forest Inventory and Analysis Project to report periodic inventories and use of the Nation's forest resources.*

active large and medium sawmills continued a trend begun in 1956.

Since at least 1956, the annual quantity of logs and bolts used per mill has increased. Most mills constructed since 1956 have been larger than average for their mill type, and most mills that closed were small and inefficient. Although the industry is dispersed throughout the State, major mills are concentrated in the northern, central, and east-central areas (fig. 1).

Log and bolt receipts at active mills were 309.7 million cubic feet, up 19 percent from 1973 and 21 percent from 1967. These receipts represent 2.6 percent of the roundwood consumed at U.S. mills in 1981. Three-fourths of the receipts were hardwoods. Wisconsin mills (excluding treating plants) imported 19 percent of their roundwood requirements, down from 25 percent in 1973. Compared to the previous 4 or 5 years, national markets for saw logs and veneer logs were weak in 1981, but markets for pulpwood were moderately strong.

Roundwood production climbed from 181.4 million cubic feet in 1967 to 395.3 million cubic feet in 1981. Annual production increases averaged 6.2 percent for softwoods and 5.2 percent for hardwoods. Roundwood output more than quadrupled in the Southeast Unit and rose significantly in the other Units:

| Survey Unit | Roundwood production 1967 | 1981 | Change |
|---|---|---|---|
| | (Thousand cubic feet) | | (Percent) |
| Northeast | 71.3 | 119.5 | +68 |
| Northwest | 51.1 | 110.4 | +116 |
| Central | 33.3 | 77.4 | +132 |
| Southwest | 16.9 | 49.9 | +195 |
| Southeast | 8.8 | 38.1 | +333 |
| Total | 181.4 | 395.3 | +118 |

Most of the major production gains between 1967 and 1981 were in fuelwood in the Central and Southern Units and in pulpwood and fuelwood in the Northern Units. Roundwood products Statewide in 1981 and 1967 ranked in order of output were:

| Product | Roundwood production 1967 | 1981 |
|---|---|---|
| | (Percent) | |
| Pulpwood | 58.0 | 41.9 |
| Fuelwood | 24.9 | 33.9 |
| Saw logs | 12.1 | 21.8 |
| Veneer logs | 2.0 | 1.1 |
| Posts | 1.2 | 1.1 |
| Other | 1.8 | 0.2 |

Proportionally, roundwood production partially shifted from northeast to southern Wisconsin between 1967 and 1981. Huge increases in fuelwood harvesting in the Southern Units accounted for the bulk of this shift.

Aspen, red oak, and elm, the leading species cut, provided 54 percent of the total Statewide harvest in 1981. Harvesting of each major species increased by 41 percent or more from 1967:

| Species | Roundwood Production 1967 | 1981 | Change |
|---|---|---|---|
| | (Thousand cubic feet) | | (Percent) |
| Aspen | 70.4 | 99.6 | +41 |
| Red oak | 26.1 | 65.8 | +152 |
| Elm | 10.2 | 47.0 | +361 |
| Hard maple | 13.6 | 30.0 | +121 |
| White oak | 5.9 | 20.2 | +242 |
| Red pine | 1.6 | 19.5 | +1,119 |
| Jack pine | 13.3 | 19.0 | +43 |
| Paper birch | 6.3 | 18.9 | +200 |
| Soft maple | 5.6 | 14.5 | +159 |
| Ash | 4.1 | 9.9 | +141 |
| Balsam fir | 3.8 | 9.6 | +153 |
| White pine | 3.9 | 8.8 | +126 |
| Basswood | 4.5 | 8.2 | +82 |
| Other species | 12.1 | 24.3 | +101 |
| Total | 181.4 | 395.3 | +118 |

Largest percentage gains since 1967 were in red pine and elm. Red pine plantations are maturing and being thinned for products and elm dying from Dutch elm disease are being salvaged.

Nearly four-fifths of the roundwood harvest came from private land:

| Owner | Roundwood harvest All species | Softwoods | Hardwoods |
|---|---|---|---|
| | (Percent) | | |
| National Forest | 5 | 10 | 4 |
| Other federal | (1) | (1) | (1) |
| State | 2 | 3 | 1 |
| County and municipal | 12 | 12 | 12 |
| Indian | 2 | 5 | 2 |
| Private | | | |
| Forest industry | 8 | 15 | 7 |
| Other private | 71 | 55 | 74 |
| Total | 100 | 100 | 100 |

Public land supplied a higher proportion of softwoods than hardwoods because most of the public land is in northern Wisconsin where softwoods are more prevalent.

## PULPWOOD

In 1981 Wisconsin produced 2.39 million cords of pulpwood which was a record high at that time. Eighty-eight out of 100 cords were roundwood; the remainder was wood residue from sawmills, veneer

[1]*Less than 1 percent.*

mills, and other mills. Residue has become an important pulpwood source since 1959 and has contributed more than 200,000 cords annually since 1978.

In 1951, hardwood constituted more than half of the roundwood cut. Since then, the hardwood proportion of roundwood has grown to about three-fourths of the total.

Annual harvests of aspen, the leading pulpwood species, have more than quadrupled in the last 30 years. Harvesting of other hardwoods began after World War II and, by the early 1950's, became an important part of the pulpwood cut. During the last decade the annual birch harvest has doubled. Important hardwood species cut for pulpwood in 1981 were:

| Species | Hardwood pulpwood (Thousand cords) |
|---|---|
| Aspen | 965 |
| Paper birch | 131 |
| Hard maple | 119 |
| Elm | 71 |
| Soft maple | 63 |
| Red oak | 61 |

Pine has been the leading softwood pulping species cut for more than 35 years. Since 1975 the annual pine cut has exceeded 250,000 cords and rose above 400,000 cords in 1981. Composition of the 1981 pine cut was jack pine (52 percent), red pine (43 percent), and white pine (5 percent). Since 1971 the annual balsam fir harvest has nearly doubled; the hemlock, spruce, and tamarack harvests have not shown any definite trends.

Most (97 percent in 1981) of Wisconsin's pulpwood remains in the State. Minnesota and Michigan are the principal customers for pulpwood leaving Wisconsin.

Northeast and Northwest Wisconsin supplied 83 percent of the roundwood pulpwood. Counties furnishing more than 100,000 cords each were Marinette, Oneida, Bayfield, Forest, Douglas, Sawyer, and Price.

Twenty-six Wisconsin mills (23 pulp, 2 particleboard, and 1 waferboard) received 3.15 million cords of pulpwood in 1981. Imports included 419,000 cords from Michigan, 177,000 cords from Minnesota, 164,000 cords from other (primarily western) States, and 75,000 cords from Canada. Roundwood constituted 84 percent of the total receipts. Leading imported species were aspen, spruce, jack pine, and hard maple. Canadian shipments were spruce and softwood residue. Sawmills in several western States were the chief suppliers of softwood residue chips to Wisconsin.

Since 1946 the upward trend in receipts has been interrupted periodically by several sharp declines. These declines are usually a reaction to overbuilding woodyard inventories at mills.

Demand in Wisconsin for birch has increased significantly since 1973 while demand for aspen and other hardwoods has leveled off. During the last decade demand for pine rose slightly, demand for balsam fir and tamarack was steady, and demand for spruce and hemlock fell sharply. Pine overtook spruce in 1959 as the primary softwood species used in Wisconsin. Spruce imports from Minnesota have fallen irregularly since 1967 and have plunged from Canada since 1973.

## SAW LOGS

During 1981 loggers in Wisconsin harvested 491 million board feet of saw logs, which is up 104 million board feet from 1973 and up 218 million board feet from 1967. Eighty-five percent was hardwoods. Wisconsin saw log output was excellent considering the nation's saw log production in 1981 was the lowest in more than 30 years. Principal species cut were:

| Species | Saw log production volume (Million board feet, Int'l. 1/4-inch rule) |
|---|---|
| Red oak | 133 |
| Aspen | 76 |
| Hard maple | 47 |
| Elm | 43 |
| White pine | 37 |
| White oak | 34 |

Only 1 million board feet were shipped out-of-State.

Major production gains since 1973 were in red oak (48 million board feet), white oak (15 million board feet), and white pine (13 million board feet). Red oak is in high demand for furniture. More than four-fifths of the gain in the red oak cut came from Central and Southeast Wisconsin.

Elm production dropped 15 million board feet from 1973; no other species had a decline of more than 1 million board feet. Elm saw log production changes since 1973 reflect the decimation of elm by Dutch elm disease in the Southeast Unit and the spread of the disease in the Northwest Unit:

| Survey Unit | Elm saw log production | |
|---|---|---|
| | 1973 | 1981 |
| | (Thousand board feet, Int'l 1/4-inch rule) | |
| Northeast | 27,904 | 20,240 |
| Northwest | 3,510 | 13,130 |
| Central | 14,548 | 4,481 |
| Southwest | 4,607 | 3,981 |
| Southeast | 7,495 | 1,008 |

Compared to 1973, loggers intensified their saw log harvesting in the Northwest, Central, and

Southwest Units. Northeast Wisconsin supplied 30 percent of the saw log volume including 48 percent of the aspen and hard maple, 47 percent of the elm, and 37 percent of the white pine.

Leading saw log-producing counties were Forest, Marinette, Menominee, and Price. Nineteen counties each cut more than 12 million board feet.

More than 600 sawmills received 539 million board feet of saw logs in 1981 compared with 408 million board feet received by more than 500 mills in 1973. Imports came chiefly from Michigan (39 million board feet) and Minnesota (9 million board feet).

Average lumber output per sawmill rose 13 percent from 1973 to 1981. Output continues to rise because most mills that close are smaller than average, most new mills are larger than average, and other mills improved their productivity. Northeast Wisconsin, containing 12 of the 23 largest mills, was the leading lumber-producing Unit.

## VENEER LOGS

Wisconsin cut 7 percent of the U.S. hardwood veneer log harvest in 1981. Of the 27.2 million board feet of veneer logs cut in 1981 in Wisconsin, 52 percent remained in the State, 45 percent was shipped to Michigan, and most of the remainder was sent to Indiana and to other countries. Aspen was the primary species cut, followed by red oak, hard maple, and elm. Top-producing counties were Iron, Bayfield, Shawano, La Crosse, Douglas, and Vilas.

Veneer log production fell 5 million board feet from the 1973 level. Declines were concentrated in elm, hard maple, red oak, and walnut. Walnut harvest was nominal in 1981.

In 1981, 15 Wisconsin veneer mills received 34.5 million board feet of logs, which is down 3.3 million board feet from 1973. Elm receipts dropped 74 percent from 1973. Nearly three-fifths of the volume came from out-of-State—Michigan (14.1 million board feet), Minnesota (2.5 million board feet), Iowa (1.3 million board feet), Illinois, Pennsylvania, Indiana, and Canada. Principal species imported and their major sources were hard maple and yellow birch from Michigan and red oak from Minnesota, Iowa, and Michigan.

During the last 35 years in Wisconsin, the number of active veneer mills dropped by about two-thirds and the annual volume of veneer logs consumed fell by half. Most of the decline in veneer log receipts occurred between 1956 and 1970. Since 1970, annual veneer log consumption has ranged between 28 and 42 million board feet. Michigan has been a critical supplier of veneer logs to Wisconsin for more than 3 decades.

## FUELWOOD

Fuelwood production in 1981 was 2,166,000 cords; 1,916,000 cords were from roundwood and 250,000 cords were from primary wood-using mill residue used for industrial and domestic fuel.

Central and Southeast Wisconsin supplied one-half of the roundwood fuel. No Survey Unit contributed less than 14 percent. Counties each producing more than 50,000 cords were Marathon, Outagamie, Oneida, Sheboygan, Grant, Eau Claire, and Chippewa.

Households cut 7 out of 8 cords of fuelwood from roundwood; loggers cut the remainder. However, loggers harvested 1 out of 4 cords in the two Northern Units:

| Survey Unit | Fuelwood production | | |
|---|---|---|---|
| | Households | Loggers | Totals |
| | (Thousand cords) | | |
| Northeast | 241 | 79 | 320 |
| Northwest | 204 | 66 | 270 |
| Central | 411 | 82 | 493 |
| Southwest | 355 | 10 | 365 |
| Southeast | 465 | 3 | 468 |
| Total | 1,676 | 240 | 1,916 |

Red oak and elm comprised 52 percent of the roundwood fuel. Leading species cut were:

| Species | Roundwood fuel production | |
|---|---|---|
| | (Thousand cords) | (Percent) |
| Red oak | 526 | 27 |
| Elm | 479 | 25 |
| Hard maple | 179 | 9 |
| White oak | 176 | 9 |
| Aspen | 103 | 5 |
| White birch | 98 | 5 |
| Soft maple | 85 | 4 |
| Ash | 69 | 4 |

No other species supplied more than 26,000 cords. Only 3 percent was softwoods; white, jack, and red pine were the major softwoods.

Most (92 percent) of the fuelwood cut came from private land. A significant quantity of fuelwood in the Northern Units came from public land:

| Survey Unit | Fuelwood | |
|---|---|---|
| | Private | Public |
| | (Thousand cords) | |
| Northeast | 264 | 56 |
| Northwest | 200 | 70 |
| Central | 470 | 23 |
| Southwest | 362 | 3 |
| Southeast | 465 | 3 |
| Total | 1,761 | 155 |

Rural woodland furnished 78 out of every 100 cords of roundwood fuel. Of the remaining 22 cords out of 100 that were cut from other land classes, 9 cords came from fence rows, windbreaks, and rural yards; 7 cords came from pasture and cropland; 5 cords came from cities and villages, and 1 cord came from other areas.

Most (85 percent) of the primary wood-using mill residue used for fuel was hardwood. Northeast Wisconsin was the leading supplier of both softwood and hardwood:

| Survey Unit | Mill residue | |
|---|---|---|
| | Softwood | Hardwood |
| | (Thousand cords) | |
| Northeast | 21 | 67 |
| Northwest | 8 | 44 |
| Central | 6 | 38 |
| Southwest | 3 | 53 |
| Southeast | 1 | 9 |
| Total | 39 | 211 |

Nearly 62 percent of the residue burned was coarse (chippable) and the remainder was fines (primarily sawdust, shavings, and veneer clippings).

Two residue user groups were identified—industrial and domestic. Industrial customers used about three-fifths (152,000 cords) of the residue burned for fuel; 88,000 cords were fines and 64,000 cords were coarse residue. Domestic (household) users preferred coarse residue because it is easier to handle and burns better than fines in most stoves and fireplaces. Domestic customers used 98,000 cords, only 7,000 cords of which were fines.

More detailed information on 1981 fuelwood production and sources in Wisconsin can be found in Resource Bulletin NC-75.

## OTHER PRODUCTS

Other roundwood products (1.3 percent of all roundwood) cut in Wisconsin in 1981 included posts, shavings bolts, poles, cooperage logs, charcoal bolts, and piling. In order of importance, major species harvested were red pine, cedar, and aspen. Southwest and Northwest Wisconsin are the chief logging areas for these products.

## LOGGING RESIDUE

During the 1981 roundwood harvest, an estimated 106.9 million cubic feet of logging residue was generated. Logging residue includes all wood fiber left behind from trees cut during logging operations and not subsequently used. Total residue generated is equivalent to 1,353,000 cords of pulpwood, enough wood to supply five, 500 ton/day pulpmills for 1 year. Alternatively, this volume of residue is equivalent to four-fifths of Wisconsin's fuelwood demand from roundwood in 1981.

Five species accounted for two-thirds of the residue:

| Species | Residue volume | |
|---|---|---|
| | (Million cubic feet) | (Percent of total) |
| Aspen | 39.0 | 36 |
| Red oak | 15.1 | 14 |
| Hard maple | 7.7 | 7 |
| Elm | 6.5 | 6 |
| Jack pine | 5.4 | 5 |

Seventeen of the 22 counties in the Northern Units each generated more than 1 million cubic feet of aspen residue.

The Northern Units produced 71 percent of the residue:

| Survey Unit | Residue volume | |
|---|---|---|
| | (Million cubic feet) | (Percent of total) |
| Northeast | 39.3 | 37 |
| Northwest | 35.9 | 34 |
| Central | 17.6 | 16 |
| Southwest | 11.7 | 11 |
| Southeast | 2.4 | 2 |
| Total | 106.9 | 100 |

Five counties—Marinette, Forest, Oneida, Bayfield, and Price—each produced more than 5 million cubic feet of logging residue.

## PRIMARY MILL RESIDUE

During 1981, Wisconsin primary wood-using mills (except the pulpmills) generated 750,000 green tons of coarse residue, 465,000 green tons of fine residue, and 327,000 green tons of bark. Much of this residue was used: 99 percent of the coarse, 97 percent of the fine, and 96 percent of the bark residue was used. Pulpmills consumed 53 percent of the coarse residue for fiber products and industry and households consumed 40 percent for fuel. Fine residue was used primarily for industrial fuel, soil conditioners, mulch, livestock bedding, and poultry litter. Bark was used chiefly for industrial fuel.

Mills have found many additional markets for residue since 1973. In 1973, only 87 percent of the coarse residue, 70 percent of the fine, and 55 percent of the bark was used. Most of the increased use by 1981 was for fuel:

| Residue type | Residue used for fuel | |
|---|---|---|
| | 1973 | 1981 |
| | (Percent) | |
| Coarse | 18 | 40 |
| Fine | 21 | 40 |
| Bark | 37 | 78 |

Counties each producing more than 50,000 green tons of coarse and fine residue in 1981 were Vilas, Ashland, Marinette, Shawano, La Crosse, and Chippewa. Estimates of residue in 1981 by type of disposal for each county are found in the Appendix. Individuals or firms desiring residue can use the county data to pinpoint areas with the highest residue concentrations.

## OUTLOOK

Growth rates in the U.S. economy, and particularly the economy of the Upper Midwest, will be major factors in determining the growth rate in demand for Wisconsin's roundwood products. Changes in demand for housing, furniture, pallets, railroad ties, paper, and paperboard are all vitally important to Wisconsin's primary wood-using industry.

Between 1967 and 1981 the average annual increases in roundwood production for pulpwood, saw logs, and fuelwood were:

| Product | Average annual increase | |
|---|---|---|
| | Softwood | Hardwood |
| | (Percent) | |
| Pulpwood | 5.4 | 2.6 |
| Saw logs | 7.6 | 4.3 |
| Fuelwood | 16.8 | 13.7 |

As mentioned earlier, the average annual increase for all roundwood products between 1967 and 1981 was 6.2 percent for softwoods and 5.2 percent for hardwoods. Neither of these rates of increase are likely to be sustained from 1981 to 1991; they were abnormally high because fuelwood demand increased at unsustainable rates since 1973. During the next decade, average annual rate increases are likely to: be lower for softwood pulpwood and remain steady for hardwood pulpwood; be lower for softwood and hardwood saw logs; and be 5 percent or less for softwood and hardwood fuelwood. Most of the reaction to higher energy prices was already reflected in the fuelwood harvest in 1981.

Through 1991, Wisconsin should continue to import significant quantities of roundwood and average output per mill should continue to rise.

# APPENDIX

## STUDY METHODS

Except for data on posts and fuelwood cut from roundwood, data for this publication came from canvassing (with formal questionnaires) all of the primary wood-using mills that use Wisconsin logs and bolts and all public agencies administering forest land. The study was a cooperative effort between the Wisconsin Department of Natural Resources (DNR) and the North Central Forest Experiment Station (NCFES). DNR foresters personally canvassed all of the Wisconsin primary mills (except pulp, particleboard, and waferboard mills) and public agencies (except Federal) administering Wisconsin forest land. DNR utilization and marketing specialists provided estimates based on prior knowledge and contacts for a few Wisconsin mills that did not furnish complete data.

The NCFES mailed formal questionnaires to all Wisconsin pulp, particleboard, and waferboard mills; all out-of-State mills using Wisconsin roundwood; federal agencies administering forest land; and all primary wood-using firms owning Wisconsin forest land.

Using formal questionnaires, DNR foresters canvassed by telephone 2,215 sample households and 248 sample loggers to obtain fuelwood and post data. Details concerning study methods are found in Resource Bulletin NC-75.

Logging utilization factors were used to estimate the logging residue. These factors were determined from a Wisconsin logging utilization study by the NCFES during 1981 and 1982.

The NCFES edited and compiled the data.

## SAMPLING ERROR

Because all primary wood-using mills were canvassed, there is no sampling error for the roundwood products they used or the wood and bark residue they generated.

All the reported figures for fuelwood and posts are estimates based on sampling procedures designed to give accurate estimates of fuelwood production. A measure of reliability of these figures is given by sampling errors. The sampling error means that the chances are two out of three that the results for the sample differ by no more than the amount indicated from the results that would have been obtained if a 100 percent sample of all households and loggers had been made. Sampling error for fuelwood production was ±6.59 percent on a volume of 1,915,979 cords. Sampling error for post production was ±28.26 percent on a volume of 4,271,000 posts.

## DEFINITION OF TERMS

**Coarse mill residue.**—Wood residue suitable for chipping such as slabs, edgings, and veneer cores.

**Commercial forest land.**—Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Generally, this includes areas suitable for growing crops of industrial wood in excess of 20 cubic feet per acre annually.

**Consumption.**—The quantity of a commodity, such as pulpwood, utilized.

**County and municipal land.**—Land owned by counties and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

**Fine mill residue.**—Wood residue not suitable for chipping such as sawdust and veneer clippings.

**Forest industry land.**—Land owned by companies or individuals operating primary wood-using plants.

**Forest Survey Unit.**—A geographical area (group of counties) used by the Forest Inventory and Analysis Project to report periodic inventories and use of the Nation's forest resources.

**Indian land.**—Tribal land held in fee but administered by the Federal Government.

**Logging residue.**—The unused portions of trees cut or killed by logging.

**National Forest land.**—Federal land that has been legally designated as National Forest or purchase units, and other land under the administration of the USDA Forest Service.

**Primary wood-using mills.**—Mills receiving roundwood or chips from roundwood for processing into products.

**Primary wood-using mill residue.**—Wood materials (coarse and fine) and bark generated at manufacturing plants from roundwood processed into principal products. These residues include wood products (byproducts) obtained incidental to production of principal products and wood materials not utilized for some product.

**Roundwood.**—Logs, bolts, or other round sections cut from trees (including chips from roundwood).

**Roundwood production.**—The quantity of roundwood harvested in a geographic area.

**Roundwood products.**—Saw logs, pulpwood, veneer logs, fuelwood, posts, cooperage logs, poles, piling, shaving bolts, charcoal bolts, and chips from roundwood.

**Roundwood receipts.**—The quantity of roundwood received in a geographic area regardless of the geographic source.

**Rural woodland.**—Wooded areas outside city and village limits excluding fence rows, windbreaks, rural yards, pasture, and cropland.

**Standard cord.**—A stack of wood bolts (or the equivalent) encompassing 128 cubic feet of wood, bark, and air space. A cord of pulpwood contains 79 cubic feet of wood and 49 cubic feet of bark and air space. A cord of fuelwood contains 70 cubic feet of wood and 58 cubic feet of bark and air space.

**State land.**—Land owned by States or land leased to these governmental units for 50 years or more.

## COMMON AND SCIENTIFIC NAMES OF TREE SPECIES MENTIONED

SOFTWOODS

- Jack pine ..... *Pinus banksiana*
- Red pine ..... *Pinus resinosa*
- Eastern white pine ..... *Pinus strobus*
- White spruce ..... *Picea glauca*
- Black spruce ..... *Picea mariana*
- Balsam fir ..... *Abies balsamea*
- Eastern hemlock ..... *Tsuga canadensis*
- Tamarack ..... *Larix laricina*
- Northern white-cedar ..... *Thuja occidentalis*

HARDWOODS

- White oaks
  - White oak ..... *Quercus alba*
  - Swamp white oak ..... *Quercus bicolor*
  - Bur oak ..... *Quercus macrocarpa*
  - Chinkapin oak ..... *Quercus muehlenbergii*
- Red oaks
  - Northern red oak ..... *Quercus rubra*
  - Northern pin oak ..... *Quercus ellipsoidalis*
  - Black oak ..... *Quercus velutina*
- Hickory
  - Shagbark hickory ..... *Carya ovata*
  - Bitternut hickory ..... *Carya cordiformis*
- Yellow birch ..... *Betula alleghaniensis*
- Hard maple
  - Sugar maple ..... *Acer saccharum*
  - Black maple ..... *Acer nigrum*
- Soft maples
  - Red maple ..... *Acer rubrum*
  - Silver maple ..... *Acer saccharinum*
- Ashes
  - White ash ..... *Fraxinus americana*
  - Black ash ..... *Fraxinus nigra*
  - Green ash ..... *Fraxinus pennsylvanica*
- Balsam poplar ..... *Populus balsamifera*
- Eastern cottonwood ..... *Populus deltoides*
- Aspens
  - Bigtooth aspen ..... *Populus grandidentata*
  - Quaking aspen ..... *Populus tremuloides*
- American basswood ..... *Tilia americana*
- Beech ..... *Fagus grandifolia*
- Black walnut ..... *Juglans nigra*
- Elms
  - American elm ..... *Ulmus americana*
  - Slippery elm ..... *Ulmus rubra*
  - Rock elm ..... *Ulmus thomasii*

Paper birch ..... *Betula papyrifera*
Other hardwoods
Boxelder ..... *Acer negundo*
Black locust ..... *Robinia pseudoacacia*
Honeylocust ..... *Gladitsia triacanthos*
River birch ..... *Betula nigra*
Red mulberry ..... *Morus rubra*
Blackgum ..... *Nyssa silvatica*
Northern Catalpa ..... *Catalpa speciosa*
Sycamore ..... *Platanus occidentalis*
Black cherry ..... *Prunus serotina*
Butternut ..... *Juglans cinerea*
Hackberry ..... *Celtis occidentalis*
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Table 1.--Output of roundwood products by species group, Wisconsin, 1967 and 1981

(In million cubic feet)

| Product | All species | | Softwoods | | Hardwoods | |
|---|---|---|---|---|---|---|
| | 1967 | 1981 | 1967 | 1981 | 1967 | 1981 |
| Pulpwood[1] | 105.3 | 165.6 | 22.1 | 46.1 | 83.2 | 119.5 |
| Saw logs | 45.1 | 86.0 | 4.8 | 13.4 | 40.3 | 72.6 |
| Fuelwood | 21.9 | 134.0 | 0.4 | 3.5 | 21.5 | 130.5 |
| Veneer logs | 3.7 | 4.4 | [2] | [2] | 3.7 | 4.4 |
| Posts | 2.2 | 4.4 | 1.0 | 3.5 | 1.2 | 0.9 |
| Cooperage logs | 0.2 | 0.1 | -- | -- | 0.2 | 0.1 |
| Poles & piling | 0.5 | 0.1 | 0.4 | 0.1 | 0.1 | [2] |
| Other[3] | 2.5 | 0.7 | -- | -- | 2.5 | 0.7 |
| All products | 181.4 | 395.3 | 28.7 | 66.6 | 152.7 | 328.7 |

[1] Includes particleboard and waferboard bolts.

[2] Less than 50 thousand cubic feet.

[3] Includes logs and bolts used for excelsior, shavings, charcoal, and other specialty products.

Table 2.--Output of roundwood products by type of product, Wisconsin, 1981

| Product | Standard units | All species | Soft-woods | Aspen | Other hard-woods | All species | Soft-woods | Aspen | Other hard-woods |
|---|---|---|---|---|---|---|---|---|---|
| | | - - - Thousand standard units - - - | | | | - - - - Thousand cubic feet - - - - | | | |
| Pulpwood[1] | Standard cords[2] | 2,098 | 585 | 965 | 548 | 165,648 | 46,161 | 76,238 | 43,249 |
| Saw logs | Board feet[3] | 490,775 | 75,683 | 76,407 | 338,685 | 85,994 | 13,450 | 13,331 | 59,213 |
| Fuelwood | Standard cords[2] | 1,916 | 49 | 104 | 1,763 | 133,957 | 3,443 | 7,238 | 123,276 |
| Veneer logs | Board feet[3] | 27,250 | 44 | 12,971 | 14,235 | 4,389 | 5 | 2,109 | 2,275 |
| Posts | Pieces | 4,271 | 3,350 | 151 | 770 | 4,361 | 3,441 | 152 | 768 |
| Cooperage logs | Board feet[3] | 898 | -- | -- | 898 | 120 | -- | -- | 120 |
| Poles | Pieces | 17 | 16 | -- | 1 | 142 | 140 | -- | 2 |
| Other[3] | Cubic feet | 725 | 1 | 483 | 241 | 725 | 1 | 483 | 241 |
| All products | | -- | -- | -- | -- | 395,336 | 66,641 | 99,551 | 229,144 |

[1] Includes particleboard and waferboard bolts.

[2] Contains 128 cubic feet, including wood, bark, and air space.

[3] International 1/4-inch rule.

[4] Includes piling, excelsior, shavings, charcoal, and other specialty products.

Table 3.--Output of roundwood products by ownership class, Forest Survey Unit, and species group, Wisconsin, 1981

(In thousand cubic feet)

| Ownership class and species group | All Units | Forest Survey Unit | | | | |
|---|---|---|---|---|---|---|
| | | Northeast Unit | Northwest Unit | Central Unit | Southwest Unit | Southeast Unit |
| Federal | | | | | | |
| National Forest | | | | | | |
| Softwoods | 6,710 | 3,204 | 3,506 | -- | -- | -- |
| Hardwoods | 13,376 | 8,486 | 4,890 | -- | -- | -- |
| Total | 20,086 | 11,690 | 8,396 | -- | -- | -- |
| Other | | | | | | |
| Softwoods | 145 | -- | -- | 145 | -- | -- |
| Hardwoods | 101 | -- | -- | 101 | -- | -- |
| Total | 246 | -- | -- | 246 | -- | -- |
| State | | | | | | |
| Softwoods | 2,067 | 733 | 515 | 651 | 24 | 144 |
| Hardwoods | 4,368 | 2,809 | 929 | 412 | 77 | 141 |
| Total | 6,435 | 3,542 | 1,444 | 1,063 | 101 | 285 |
| County & municipal | | | | | | |
| Softwoods | 8,198 | 2,663 | 4,580 | 848 | -- | 107 |
| Hardwoods | 38,431 | 14,796 | 18,189 | 5,403 | 3 | 40 |
| Total | 46,629 | 17,459 | 22,769 | 6,251 | 3 | 147 |
| Indian | | | | | | |
| Softwoods | 3,211 | 2,982 | 197 | 32 | -- | -- |
| Hardwoods | 6,488 | 5,655 | 828 | 5 | -- | -- |
| Total | 9,699 | 8,637 | 1,025 | 37 | -- | -- |
| Private | | | | | | |
| Forest Industry | | | | | | |
| Softwoods | 10,113 | 3,865 | 4,318 | 1,929 | -- | 1 |
| Hardwoods | 22,037 | 10,130 | 9,204 | 2,485 | 179 | 39 |
| Total | 32,150 | 13,995 | 13,522 | 4,414 | 179 | 40 |
| Other | | | | | | |
| Softwoods | 36,197 | 12,580 | 6,733 | 11,826 | 3,616 | 1,442 |
| Hardwoods | 243,894 | 51,616 | 56,494 | 53,551 | 46,019 | 36,214 |
| Total | 280,091 | 64,196 | 63,227 | 65,377 | 49,635 | 37,656 |
| All owners | | | | | | |
| Softwoods | 66,641 | 26,027 | 19,849 | 15,431 | 3,640 | 1,694 |
| Hardwoods | 328,695 | 93,492 | 90,534 | 61,957 | 46,278 | 36,434 |
| Total | 395,336 | 119,519 | 110,383 | 77,388 | 49,918 | 38,128 |

Table 4.--Number of active primary wood-using mills by Forest Survey Unit and kind of mill, Wisconsin, 1956, 1967, 1973, and 1981

| Kind of mill | All units | | | | Northeast Unit | | | Northwest Unit | | | Central Unit | | | Southwest Unit | | | Southeast Unit | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1956 | 1967 | 1973 | 1981 | 1967 | 1973 | 1981 | 1967 | 1973 | 1981 | 1967 | 1973 | 1981 | 1967 | 1973 | 1981 | 1967 | 1973 | 1981 |
| Pulp mills | 29 | 27 | 24 | 23 | 7 | 6 | 5 | 3 | 3 | 3 | 9 | 8 | 8 | -- | -- | -- | 8 | 7 | 7 |
| Saw mills | | | | | | | | | | | | | | | | | | | |
| Large[1/] | 8 | 6 | 15 | 23 | 5 | 10 | 12 | -- | 1 | 3 | 1 | 2 | 3 | -- | 1 | 3 | -- | 1 | 2 |
| Medium[2/] | 55 | 73 | 101 | 110 | 17 | 23 | 19 | 12 | 19 | 21 | 14 | 25 | 33 | 23 | 27 | 34 | 7 | 7 | 3 |
| Small[3/] | 1,565 | 739 | 411 | 480 | 125 | 93 | 111 | 130 | 73 | 117 | 182 | 95 | 87 | 175 | 75 | 78 | 127 | 75 | 87 |
| All sawmills | 1,628 | 818 | 527 | 613 | 147 | 126 | 142 | 142 | 93 | 141 | 197 | 122 | 123 | 198 | 103 | 115 | 134 | 83 | 92 |
| Veneer mills | 47 | 26 | 19 | 15 | 7 | 5 | 4 | 6 | 5 | 6 | 4 | 4 | 2 | 1 | -- | -- | 8 | 5 | 3 |
| Cooperage mills | 5 | 3 | 1 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 1 | 1 | -- | -- | -- |
| Charcoal plants | 4 | 2 | 1 | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | -- | 1 | -- | -- | 1 | -- | 1 |
| Misc. plants[4/] | 40 | 22 | 11 | 10 | 4 | 3 | 4 | 7 | 2 | 2 | 4 | 2 | 2 | 6 | 3 | 2 | 1 | 1 | -- |
| Total | 1,753 | 898 | 583 | 663 | 165 | 140 | 155 | 158 | 103 | 152 | 214 | 137 | 135 | 209 | 107 | 118 | 152 | 96 | 103 |

[1/] Annual lumber production of 5 million board feet or more.

[2/] Annual lumber production from 1 million to 4.999 million board feet.

[3/] Annual lumber production less than 1 million board feet.

[4/] Includes waferboard, particleboard, treating, fence, excelsior, and specialty plants.

Table 5.--Roundwood receipts by type of mill in Wisconsin, 1956, 1967, 1973, and 1981

(In million cubic feet)

| Type of mill | All species | | | | Softwoods | | | | Hardwoods | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1956 | 1967 | 1973 | 1981 | 1956 | 1967 | 1973 | 1981 | 1956 | 1967 | 1973 | 1981 |
| Pulpmills[1/] | 164.3 | 195.1 | 179.2 | 208.7 | 89.8 | 79.4 | 63.0 | 62.7 | 74.5 | 115.7 | 116.2 | 146.0 |
| Sawmills | 67.8 | 47.8 | 68.0 | 94.4 | 14.5 | 5.1 | 8.8 | 15.8 | 53.3 | 42.7 | 59.2 | 78.6 |
| Other mills[2/] | 21.5 | 12.0 | 12.5 | 6.6 | [3/] | [3/] | [3/] | 0.2 | 21.5 | 12.0 | 12.5 | 6.4 |
| All mills | 253.6 | 254.9 | 259.7 | 309.7 | 104.3 | 84.5 | 71.8 | 78.7 | 149.3 | 170.4 | 187.9 | 231.0 |

[1/] Includes particleboard and waferboard mills in 1981.

[2/] Does not include treating plants; includes particleboard mills in 1967 and 1973.

[3/] Less than 0.05 million cubic feet.

Table 6.--Wisconsin pulpwood production by species group, 1946-1981

(In thousand standard cords, unpeeled)[1/]

| Year | Total | Roundwood | | | | | | | | Residue | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pine | Balsam fir | Hemlock | Spruce | Tamarack | Aspen | Birch | Other hardwoods | Soft-woods | Hard-woods |
| 1946 | 428 | 75 | 48 | 64 | 32 | 3 | 202 | 4 | [2/] | [2/] | [2/] |
| 1947 | 493 | 157 | 53 | 50 | 31 | 6 | 187 | 8 | [2/] | [2/] | 1 |
| 1948 | 468 | 117 | 87 | 51 | 34 | 3 | 167 | 8 | [2/] | [2/] | 1 |
| 1949 | 427 | 72 | 78 | 47 | 33 | 1 | 184 | 10 | -- | [2/] | 2 |
| 1950 | 468 | 93 | 69 | 47 | 31 | [2/] | 195 | 6 | 20 | 1 | 6 |
| 1951 | 565 | 102 | 55 | 51 | 30 | 1 | 281 | 28 | 17 | -- | -- |
| 1952 | 582 | 95 | 76 | 66 | 39 | 1 | 275 | 15 | 15 | -- | -- |
| 1953 | 553 | 71 | 45 | 51 | 26 | 1 | 306 | 12 | 41 | -- | -- |
| 1954 | 691 | 113 | 56 | 63 | 31 | 4 | 348 | 27 | 49 | -- | -- |
| 1955 | 710 | 121 | 48 | 58 | 23 | 4 | 365 | 16 | 75 | -- | -- |
| 1956 | 960 | 140 | 45 | 56 | 23 | 4 | 507 | 21 | 164 | -- | -- |
| 1957 | 934 | 126 | 60 | 57 | 27 | 6 | 453 | 27 | 178 | -- | -- |
| 1958 | 828 | 148 | 62 | 55 | 23 | 6 | 369 | 18 | 147 | -- | -- |
| 1959 | 972 | 186 | 52 | 49 | 21 | 6 | 431 | 26 | 159 | 5 | 37 |
| 1960 | 1,052 | 124 | 50 | 52 | 18 | 6 | 540 | 27 | 204 | 4 | 27 |
| 1961 | 1,078 | 154 | 61 | 47 | 23 | 7 | 530 | 34 | 201 | 3 | 18 |
| 1962 | 1,140 | 188 | 46 | 42 | 15 | 6 | 572 | 41 | 188 | 6 | 36 |
| 1963 | 1,302 | 170 | 60 | 52 | 19 | 6 | 613 | 50 | 233 | 13 | 86 |
| 1964 | 1,244 | 168 | 57 | 52 | 20 | 5 | 603 | 41 | 222 | 11 | 65 |
| 1965 | 1,253 | 207 | 50 | 60 | 15 | 4 | 607 | 24 | 197 | 14 | 75 |
| 1966 | 1,536 | 215 | 55 | 69 | 17 | 3 | 810 | 39 | 243 | 12 | 73 |
| 1967 | 1,417 | 174 | 48 | 42 | 13 | 3 | 739 | 84 | 203 | 10 | 101 |
| 1968 | 1,298 | 199 | 51 | 44 | 11 | 5 | 629 | 57 | 185 | 16 | 101 |
| 1969 | 1,450 | 216 | 50 | 51 | 13 | 2 | 697 | 62 | 238 | 15 | 106 |
| 1970 | 1,656 | 259 | 68 | 53 | 16 | 4 | 771 | 76 | 296 | 19 | 94 |
| 1971 | 1,552 | 268 | 54 | 42 | 12 | 3 | 736 | 51 | 269 | 16 | 101 |
| 1972 | 1,538 | 246 | 49 | 42 | 13 | 3 | 685 | 47 | 333 | 10 | 110 |
| 1973 | 1,758 | 232 | 67 | 32 | 16 | 1 | 761 | 73 | 400 | 21 | 155 |
| 1974 | 2,053 | 291 | 85 | 45 | 19 | 2[3/] | 797 | 102 | 506 | 26 | 180 |
| 1975 | 1,505 | 240 | 98 | 45 | 25 | 4[3/] | 588 | 83 | 244 | 36 | 142 |
| 1976 | 1,840 | 286 | 89 | 43 | 19 | 3[3/] | 694 | 114 | 425 | 38 | 129 |
| 1977 | 1,816 | 297 | 73 | 43 | 19 | 5[3/] | 696 | 103 | 383 | 48 | 149 |
| 1978 | 1,895 | 358 | 75 | 52 | 20 | 4[3/] | 669 | 121 | 373 | 40 | 183 |
| 1979[4/] | 2,109 | 361 | 84 | 40 | 19 | 2[3/] | 751 | 151 | 441 | 49 | 211 |
| 1980[4/] | 2,362 | 388 | 101 | 34 | 32 | 4[3/] | 873 | 185 | 456 | 40 | 249 |
| 1981[4/] | 2,389 | 419 | 105 | 29 | 27 | 5 | 965 | 159 | 389 | 47 | 244 |

[1/] 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

[2/] Less than 500 cords.

[3/] Includes cedar.

[4/] Includes logs, bolts, and wood residue used in manufacturing particleboard and waferboard.

Table 7.--Wisconsin pulpwood production by species group and destination, 1981

(In thousand standard cords, unpeeled)[1/]

| Species group | Total | Destination of wood | | | |
|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Other States & Canada |
| Roundwood[2/] | | | | | |
| Pine | 419 | 413 | 3 | 2 | 1 |
| Balsam fir | 105 | 104 | 1 | -- | -- |
| Hemlock | 29 | 28 | 1 | -- | -- |
| Spruce | 27 | 27 | 3/ | -- | -- |
| Tamarack | 5 | 5 | 3/ | -- | -- |
| Aspen | 965 | 933 | 1 | 31 | 3/ |
| Birch | 159 | 159 | 3/ | -- | 3/ |
| Other hardwoods | 389 | 385 | 3/ | 1 | 3 |
| Total | 2,098 | 2,054 | 6 | 34 | 4 |
| Residue | | | | | |
| Softwoods | 47 | 47 | 3/ | -- | -- |
| Hardwoods | 244 | 219 | 20 | -- | 5 |
| Total | 291 | 266 | 20 | -- | 5 |
| All material | 2,389 | 2,320 | 26 | 34 | 9 |

1/ 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

2/ Includes chips from roundwood.

3/ Less than 500 cords.

Table 8.--Pulpwood production from roundwood by species group, Forest Survey Unit and county, Wisconsin, 1981

(In standard cords, unpeeled)[1/]

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Northeast Unit | | | | | | | | | | | | | |
| Florence | 56,342 | -- | 5,348 | 820 | 1,169 | 2,427 | 327 | 1,843 | 178 | 434 | 32,619 | -- | 92 |
| Forest | 127,994 | -- | 22,692 | 2,189 | 780 | 5,812 | 72 | 7,187 | 146 | 1,878 | 49,861 | -- | 1,520 |
| Langlade | 83,943 | -- | 6,645 | 303 | 227 | 2,718 | 25 | 1,083 | 137 | 2,168 | 41,051 | -- | 1,297 |
| Lincoln | 90,516 | -- | 3,558 | 629 | 1,588 | 4,132 | 1,460 | 901 | 257 | 3,663 | 46,960 | -- | 3,761 |
| Marinette | 159,377 | -- | 11,585 | 1,212 | 17,491 | 11,137 | 543 | 3,911 | 121 | 1,538 | 88,291 | -- | 143 |
| Menominee | 51,261 | -- | -- | 16,338 | 2,976 | 300 | 38 | 11 | -- | 526 | 20,941 | -- | -- |
| Oconto | 54,041 | -- | 1,569 | 705 | 11,027 | 10,267 | 269 | 393 | -- | 385 | 23,606 | -- | 62 |
| Oneida | 147,147 | -- | 20,710 | 687 | 6,255 | 8,920 | 1,905 | 4,196 | 524 | 2,196 | 63,489 | -- | 1,416 |
| Shawano | 27,859 | -- | 108 | 521 | 1,272 | 5,734 | 113 | -- | 42 | 329 | 11,990 | -- | 14 |
| Vilas | 81,380 | -- | 6,724 | 787 | 5,675 | 4,397 | 1,698 | 1,942 | 18 | 618 | 36,447 | -- | 555 |
| Total | 879,860 | -- | 78,939 | 24,191 | 48,460 | 55,844 | 6,450 | 21,467 | 1,423 | 13,735 | 415,255 | -- | 8,860 |
| Northwest Unit | | | | | | | | | | | | | |
| Ashland | 96,426 | -- | 9,713 | 544 | 2,442 | 8,415 | 812 | 2,271 | 335 | 2,176 | 42,407 | -- | 216 |
| Barron | 1,924 | -- | -- | -- | 77 | 90 | 77 | -- | -- | 33 | 1,146 | -- | 5 |
| Bayfield | 136,063 | -- | 1,233 | 379 | 15,398 | 4,435 | 1,100 | 228 | 54 | 1,536 | 84,192 | 416 | 2 |
| Burnett | 49,888 | -- | 22 | -- | 19,209 | 2,472 | 20 | 7 | 42 | 40 | 26,783 | -- | -- |
| Douglas | 116,095 | -- | 490 | -- | 37,507 | 9,527 | 146 | 40 | -- | 165 | 64,260 | 208 | -- |
| Iron | 55,349 | -- | 1,177 | 276 | 289 | 180 | 338 | 118 | 24 | 1,419 | 37,539 | -- | 531 |
| Polk | 1,938 | -- | 10 | -- | 1,928 | -- | -- | -- | -- | -- | -- | -- | -- |
| Price | 110,796 | -- | 4,719 | 650 | 1,170 | 2,323 | 161 | 1,393 | 1,067 | 5,505 | 37,793 | -- | 1,182 |
| Rusk | 65,832 | -- | 12 | 191 | 409 | 575 | 23 | -- | 96 | 3,575 | 35,230 | -- | 2,592 |
| Sawyer | 115,194 | -- | 4,548 | 661 | 3,304 | 3,554 | 311 | 688 | 659 | 2,445 | 75,203 | -- | 946 |
| Taylor | 65,695 | -- | 2,211 | 997 | 812 | 1,399 | -- | 310 | 325 | 2,650 | 30,810 | -- | 599 |
| Washburn | 54,852 | -- | 1,151 | -- | 9,416 | 2,821 | 647 | 303 | 37 | 604 | 33,897 | -- | -- |
| Total | 870,052 | -- | 25,286 | 3,698 | 91,961 | 35,791 | 3,635 | 5,358 | 2,639 | 20,148 | 469,260 | 624 | 6,073 |
| Central Unit | | | | | | | | | | | | | |
| Adams | 46,023 | -- | -- | -- | 14,586 | 21,948 | 1,329 | -- | -- | 52 | 438 | -- | -- |
| Chippewa | 25,599 | -- | -- | 149 | 1,354 | 878 | -- | -- | 121 | 862 | 12,669 | -- | 546 |
| Clark | 40,850 | -- | -- | 246 | 3,083 | 1,599 | 29 | 33 | -- | 708 | 20,317 | -- | 28 |
| Eau Claire | 18,985 | -- | -- | -- | 8,870 | 3,792 | 273 | 8 | -- | 167 | 2,406 | -- | 14 |
| Jackson | 26,619 | -- | -- | -- | 11,741 | 4,122 | 339 | -- | 10 | 150 | 2,911 | -- | -- |
| Juneau | 30,738 | -- | -- | -- | 12,815 | 6,218 | 1,444 | -- | -- | 145 | 1,742 | -- | -- |
| Marathon | 41,679 | -- | 461 | 547 | 815 | 3,988 | 236 | 356 | 31 | 658 | 21,988 | -- | 49 |
| Marquette | 6,923 | -- | -- | -- | 1,370 | 2,582 | 102 | -- | 26 | -- | 415 | -- | -- |
| Monroe | 13,683 | -- | -- | -- | 6,830 | 2,613 | 200 | -- | -- | 146 | 875 | -- | -- |
| Portage | 18,199 | -- | 23 | 97 | 4,034 | 4,411 | 1,611 | 11 | 707 | 66 | 4,409 | -- | 24 |
| Waupaca | 13,141 | -- | 40 | 4 | 1,103 | 5,890 | 983 | 9 | 14 | 117 | 3,228 | -- | 21 |
| Waushara | 13,535 | -- | -- | -- | 2,004 | 10,116 | 1,304 | -- | -- | -- | 46 | -- | -- |
| Wood | 18,900 | -- | -- | -- | 2,516 | 1,478 | 1,637 | 62 | 9 | 370 | 8,138 | -- | -- |
| Total | 314,874 | -- | 524 | 1,043 | 71,121 | 69,635 | 9,487 | 479 | 918 | 3,441 | 79,582 | -- | 682 |

(Table 8 continued on next page)

[1/] 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

(Table 8 continued)

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Southwest Unit | | | | | | | | | | | | | |
| Buffalo | 42 | -- | -- | -- | 42 | -- | -- | -- | -- | -- | -- | -- | -- |
| Crawford | 1,437 | -- | -- | -- | -- | -- | -- | -- | -- | 41 | 190 | -- | 75 |
| Dunn | 12,663 | -- | 29 | -- | 3,233 | 8,120 | 1,159 | 11 | -- | 3 | 75 | -- | -- |
| Grant | 1,435 | -- | -- | -- | -- | -- | -- | -- | -- | 39 | 180 | -- | 74 |
| Iowa | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| La Crosse | 409 | -- | -- | -- | 52 | 277 | -- | -- | -- | 3 | 53 | -- | -- |
| Lafayette | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pepin | 279 | -- | -- | -- | 108 | 111 | 11 | 23 | -- | -- | -- | -- | -- |
| Pierce | 63 | -- | -- | -- | -- | 21 | 31 | -- | -- | -- | 11 | -- | -- |
| Richland | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| St. Croix | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sauk | 5,964 | -- | -- | -- | 1,625 | 3,230 | 233 | -- | -- | 33 | -- | -- | -- |
| Trempealeau | 2,260 | -- | -- | -- | 169 | 1,851 | 122 | -- | -- | 2 | -- | -- | -- |
| Vernon | 58 | -- | -- | -- | 14 | 16 | 28 | -- | -- | -- | -- | -- | -- |
| Total | 24,610 | -- | 29 | -- | 5,243 | 13,626 | 1,584 | 34 | -- | 121 | 509 | -- | 149 |
| Southeast Unit | | | | | | | | | | | | | |
| Brown | 794 | -- | -- | -- | -- | 488 | -- | -- | -- | -- | 306 | -- | -- |
| Calumet | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Columbia | 6,062 | -- | -- | -- | 285 | 3,912 | 122 | -- | -- | 130 | 59 | -- | -- |
| Dane | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dodge | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Door | 26 | -- | -- | -- | 12 | 14 | -- | -- | -- | -- | -- | -- | -- |
| Fond du Lac | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Green | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Green Lake | 200 | -- | -- | -- | 15 | 152 | 33 | -- | -- | -- | -- | -- | -- |
| Jefferson | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Kenosha | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 25 | -- | -- |
| Kewaunee | 38 | -- | -- | -- | -- | 38 | -- | -- | -- | -- | -- | -- | -- |
| Manitowoc | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Milwaukee | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Outagamie | 292 | -- | -- | -- | 19 | 96 | 24 | -- | -- | -- | 153 | -- | -- |
| Ozaukee | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Racine | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Rock | 12 | -- | -- | -- | -- | -- | -- | -- | -- | 2 | -- | -- | -- |
| Sheboygan | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Walworth | 1,107 | -- | -- | -- | -- | 1,096 | 11 | -- | -- | -- | -- | -- | -- |
| Washington | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Waukesha | 186 | -- | -- | -- | -- | 186 | -- | -- | -- | -- | -- | -- | -- |
| Winnebago | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 8,742 | -- | -- | -- | 331 | 5,982 | 190 | -- | -- | 132 | 543 | -- | -- |
| State total | 2,098,138 | -- | 104,778 | 28,932 | 217,116 | 180,878 | 21,346 | 27,338 | 4,980 | 37,577 | 965,149 | 624 | 15,764 |

(Table 8 continued on next page)

(Table 8 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Northeast Unit | | | | | | | | | | | | |
| Florence | -- | 3,166 | 886 | -- | 1,410 | -- | 3,480 | 1,288 | 646 | 156 | -- | 53 |
| Forest | 2 | 9,493 | 1,861 | -- | 4,986 | -- | 12,631 | 4,697 | 1,233 | 345 | -- | 609 |
| Langlade | -- | 4,449 | 1,904 | -- | 3,948 | 71 | 12,589 | 3,775 | 792 | 64 | -- | 697 |
| Lincoln | -- | 5,664 | 1,290 | -- | 2,524 | -- | 6,933 | 4,937 | 2,024 | 1 | -- | 234 |
| Marinette | 25 | 7,306 | 248 | -- | 2,264 | -- | 4,729 | 4,844 | 3,074 | 774 | -- | 141 |
| Menominee | -- | 401 | 494 | -- | 2,748 | 146 | 2,439 | 2,879 | 678 | 200 | -- | 146 |
| Oconto | -- | 2,610 | 52 | -- | 512 | -- | 1,097 | 864 | 471 | 123 | -- | 29 |
| Oneida | -- | 17,590 | 1,794 | -- | 744 | -- | 7,500 | 4,709 | 3,854 | 208 | -- | 450 |
| Shawano | -- | 435 | 343 | -- | 2,460 | 246 | 2,266 | 897 | 827 | 97 | -- | 165 |
| Vilas | -- | 12,787 | 960 | -- | 445 | -- | 4,800 | 1,512 | 1,706 | 253 | -- | 56 |
| Total | 27 | 63,901 | 9,832 | -- | 22,041 | 463 | 58,464 | 30,402 | 15,305 | 2,221 | -- | 2,580 |
| Northwest Unit | | | | | | | | | | | | |
| Ashland | 3 | 6,722 | 2,592 | -- | 5,508 | -- | 7,237 | 3,821 | 1,007 | 94 | -- | 111 |
| Barron | -- | 255 | 11 | -- | 17 | -- | 77 | 56 | 64 | 14 | -- | 2 |
| Bayfield | -- | 10,046 | 2,629 | -- | 5,753 | -- | 5,370 | 2,119 | 1,133 | 28 | -- | 12 |
| Burnett | -- | 258 | -- | -- | 173 | -- | 408 | 293 | 120 | 41 | -- | -- |
| Douglas | -- | 3,197 | 37 | -- | 114 | -- | 266 | 118 | 10 | 2 | -- | 8 |
| Iron | -- | 3,339 | 1,328 | -- | 2,522 | -- | 3,689 | 1,641 | 770 | 120 | -- | 49 |
| Polk | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Price | -- | 12,345 | 3,521 | -- | 17,135 | -- | 12,049 | 5,917 | 3,055 | 645 | -- | 166 |
| Rusk | -- | 6,505 | 1,429 | -- | 1,154 | -- | 6,219 | 3,812 | 3,190 | 657 | -- | 163 |
| Sawyer | -- | 8,591 | 1,187 | -- | 894 | -- | 7,700 | 2,876 | 1,142 | 216 | -- | 269 |
| Taylor | -- | 3,608 | 2,726 | -- | 6,524 | -- | 7,381 | 3,941 | 1,064 | 301 | -- | 37 |
| Washburn | -- | 2,495 | 141 | -- | 471 | -- | 1,321 | 860 | 532 | 124 | -- | 32 |
| Total | 3 | 57,361 | 15,601 | -- | 40,265 | -- | 51,717 | 25,454 | 12,087 | 2,242 | -- | 849 |
| Central Unit | | | | | | | | | | | | |
| Adams | -- | 104 | 32 | -- | 359 | -- | 157 | 456 | 4,738 | 1,824 | -- | -- |
| Chippewa | -- | 2,332 | 802 | -- | 1,046 | -- | 1,405 | 1,363 | 1,485 | 561 | -- | 26 |
| Clark | 1 | 2,608 | 638 | -- | 1,485 | -- | 1,541 | 996 | 4,925 | 2,580 | -- | 33 |
| Eau Claire | 1 | 324 | 53 | -- | 229 | -- | 234 | 440 | 1,696 | 442 | -- | 36 |
| Jackson | 1 | 407 | 47 | -- | 271 | -- | 174 | 445 | 4,543 | 1,428 | -- | 30 |
| Juneau | -- | 521 | 2 | -- | 372 | -- | 488 | 550 | 4,401 | 2,040 | -- | -- |
| Marathon | -- | 1,447 | 995 | -- | 2,907 | 39 | 2,336 | 1,359 | 3,231 | 206 | -- | 30 |
| Marquette | -- | 208 | -- | -- | 208 | -- | 312 | 208 | 972 | 520 | -- | -- |
| Monroe | -- | 293 | 8 | -- | 333 | -- | 433 | 469 | 1,136 | 345 | -- | 2 |
| Portage | -- | 216 | 24 | -- | 80 | -- | 183 | 192 | 1,283 | 822 | -- | 6 |
| Waupaca | -- | 125 | 26 | -- | 222 | 14 | 275 | 315 | 582 | 157 | -- | 16 |
| Waushara | -- | -- | -- | -- | -- | -- | 6 | 6 | 53 | -- | -- | -- |
| Wood | -- | 400 | 118 | -- | 335 | -- | 293 | 351 | 2,387 | 800 | -- | 6 |
| Total | 3 | 8,985 | 2,745 | -- | 7,847 | 53 | 7,837 | 7,150 | 31,432 | 11,725 | -- | 185 |

(Table 8 continued on next page)

(Table 8 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Southwest Unit | | | | | | | | | | | | |
| Buffalo | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Crawford | -- | 61 | -- | 14 | 141 | -- | 71 | 91 | 533 | 202 | -- | 18 |
| Dunn | -- | 4 | -- | -- | 11 | -- | 6 | -- | 7 | 3 | -- | 2 |
| Grant | -- | 61 | -- | 12 | 139 | -- | 72 | 83 | 550 | 207 | -- | 18 |
| Iowa | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| La Crosse | -- | 3 | -- | -- | 8 | -- | 4 | 7 | -- | -- | -- | 2 |
| Lafayette | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pepin | -- | -- | -- | -- | -- | -- | -- | -- | 26 | -- | -- | -- |
| Pierce | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Richland | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| St. Croix | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sauk | -- | 63 | -- | -- | 99 | -- | 155 | 155 | 271 | 98 | -- | 2 |
| Trempealeau | -- | 14 | -- | -- | 8 | -- | 5 | 5 | 59 | 23 | -- | 2 |
| Vernon | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | -- | 206 | -- | 26 | 406 | -- | 313 | 341 | 1,446 | 533 | -- | 44 |
| Southeast Unit | | | | | | | | | | | | |
| Brown | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Calumet | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Columbia | 12 | 208 | 4 | -- | 175 | -- | 176 | 113 | 553 | 267 | -- | 46 |
| Dane | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dodge | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Door | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fond du Lac | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Green | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Green Lake | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Jefferson | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Kenosha | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Kewaunee | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Manitowoc | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Milwaukee | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Outagamie | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ozaukee | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Racine | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Rock | 1 | -- | -- | -- | 4 | -- | 2 | 1 | -- | -- | -- | 2 |
| Sheboygan | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Walworth | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Washington | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Waukesha | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Winnebago | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 13 | 208 | 4 | -- | 179 | -- | 178 | 114 | 553 | 267 | -- | 48 |
| State total | 46 | 130,661 | 28,182 | 26 | 70,738 | 516 | 118,509 | 63,461 | 60,823 | 16,988 | -- | 3,706 |

Table 9.--Pulpwood receipts in Wisconsin by species group, 1946-1981

(In thousand standard cords, unpeeled)[1/]

| Year | Total | Roundwood | | | | | | | | Residue | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pine | Balsam fir | Hemlock | Spruce | Tamarack | Aspen | Birch | Other hardwoods | Soft-woods | Hard-woods |
| 1946 | 1,902 | 298 | 280 | 233 | 645 | 16 | 416 | 14 | [2/] | [2/] | [2/] |
| 1947 | 1,722 | 292 | 230 | 134 | 687 | 19 | 346 | 13 | [2/] | [2/] | 1 |
| 1948 | 1,741 | 307 | 279 | 136 | 663 | 5 | 333 | 17 | [2/] | [2/] | 1 |
| 1949 | 1,426 | 227 | 244 | 101 | 502 | 3 | 332 | 15 | [2/] | [2/] | 2 |
| 1950 | 1,442 | 244 | 238 | 91 | 441 | 3 | 387 | 10 | 21 | 1 | 6 |
| 1951 | 2,097 | 428 | 232 | 120 | 678 | 10 | 569 | 42 | 18 | -- | -- |
| 1952 | 2,059 | 365 | 288 | 131 | 732 | 6 | 490 | 32 | 15 | -- | -- |
| 1953 | 1,689 | 283 | 179 | 76 | 529 | 2 | 552 | 26 | 42 | -- | -- |
| 1954 | 1,919 | 298 | 228 | 125 | 608 | 5 | 566 | 40 | 49 | -- | -- |
| 1955 | 1,777 | 319 | 199 | 92 | 471 | 5 | 590 | 26 | 75 | -- | -- |
| 1956 | 2,136 | 397 | 195 | 143 | 445 | 9 | 754 | 27 | 166 | -- | -- |
| 1957 | 2,247 | 325 | 254 | 116 | 578 | 14 | 739 | 38 | 183 | -- | -- |
| 1958 | 1,866 | 318 | 200 | 90 | 479 | 18 | 583 | 19 | 159 | -- | -- |
| 1959 | 1,881 | 436 | 169 | 87 | 345 | 17 | 619 | 30 | 165 | 7 | 6 |
| 1960 | 2,114 | 388 | 176 | 97 | 389 | 26 | 785 | 31 | 208 | 7 | 7 |
| 1961 | 1,972 | 330 | 177 | 92 | 350 | 19 | 741 | 44 | 196 | 12 | 11 |
| 1962 | 2,124 | 395 | 155 | 99 | 317 | 19 | 784 | 49 | 206 | 51 | 49 |
| 1963 | 2,429 | 414 | 175 | 114 | 341 | 22 | 877 | 64 | 235 | 96 | 91 |
| 1964 | 2,271 | 350 | 139 | 110 | 314 | 20 | 855 | 62 | 233 | 96 | 92 |
| 1965 | 2,290 | 410 | 114 | 120 | 300 | 19 | 899 | 26 | 219 | 91 | 92 |
| 1966 | 2,701 | 473 | 139 | 162 | 301 | 11 | 1,112 | 44 | 270 | 100 | 89 |
| 1967 | 2,729 | 415 | 140 | 100 | 308 | 42 | 1,115 | 91 | 259 | 135 | 124 |
| 1968 | 2,226 | 405 | 100 | 86 | 200 | 33 | 860 | 59 | 205 | 160 | 118 |
| 1969 | 2,514 | 456 | 81 | 112 | 208 | 25 | 978 | 63 | 278 | 192 | 121 |
| 1970 | 2,821 | 498 | 111 | 118 | 208 | 43 | 1,088 | 81 | 333 | 189 | 152 |
| 1971 | 2,581 | 514 | 88 | 83 | 167 | 37 | 1,011 | 53 | 295 | 193 | 140 |
| 1972 | 2,450 | 443 | 82 | 69 | 181 | 31 | 902 | 48 | 354 | 198 | 142 |
| 1973 | 2,696 | 387 | 103 | 54 | 224 | 28 | 1,006 | 68 | 398 | 279 | 149 |
| 1974 | 3,135 | 508 | 133 | 69 | 161 | 36 | 1,109 | 115 | 558 | 257 | 189 |
| 1975 | 2,344 | 391 | 155 | 73 | 146 | 30 | 791 | 89 | 288 | 216 | 165 |
| 1976 | 2,713 | 437 | 137 | 66 | 121 | 34 | 926 | 133 | 486 | 256 | 117 |
| 1977 | 2,596 | 416 | 109 | 43 | 94 | 31 | 915 | 120 | 445 | 299 | 124 |
| 1978 | 2,676 | 491 | 99 | 50 | 82 | 25 | 888 | 145 | 450 | 301 | 145 |
| 1979[3/] | 3,067 | 567 | 115 | 39 | 76 | 21 | 999 | 178 | 548 | 332 | 192 |
| 1980[3/] | 3,266 | 518 | 147 | 40 | 94 | 34 | 1,118 | 231 | 562 | 268 | 254 |
| 1981[3/] | 3,154 | 512 | 135 | 31 | 86 | 31 | 1,182 | 189 | 477 | 252 | 259 |

[1/] 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

[2/] Less than 500 cords.

[3/] Includes logs and bolts used in manufacturing particleboard and waferboard.

Table 10.-- Pine and spruce pulpwood receipts in Wisconsin by area of origin, 1946-1981

(In thousand standard cords, unpeeled)[1/]

| | Pine from: | | | | | | Spruce from: | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | All areas | Wisconsin | Michigan | Minnesota | Other States | Canada | All areas | Wisconsin | Michigan | Minnesota | Other States | Canada |
| 1946 | 298 | 75 | 43 | 165 | 9 | 6 | 645 | 32 | 87 | 113 | 16 | 397 |
| 1947 | 292 | 116 | 25 | 126 | 20 | 5 | 687 | 31 | 105 | 102 | 4 | 445 |
| 1948 | 307 | 117 | 24 | 122 | 29 | 15 | 663 | 34 | 95 | 113 | 6 | 415 |
| 1949 | 227 | 72 | 16 | 80 | 47 | 12 | 502 | 33 | 72 | 88 | 8 | 301 |
| 1950 | 244 | 93 | 14 | 60 | 49 | 28 | 441 | 31 | 69 | 102 | 13 | 226 |
| 1951 | 428 | 99 | 20 | 157 | 99 | 53 | 678 | 30 | 78 | 126 | 38 | 406 |
| 1952 | 365 | 92 | 13 | 87 | 129 | 44 | 732 | 39 | 86 | 151 | 3 | 453 |
| 1953 | 283 | 67 | 7 | 90 | 78 | 41 | 529 | 25 | 51 | 91 | 26 | 336 |
| 1954 | 298 | 112 | 7 | 97 | 49 | 33 | 608 | 31 | 90 | 92 | 18 | 377 |
| 1955 | 319 | 118 | 18 | 89 | 61 | 33 | 471 | 23 | 80 | 108 | 20 | 240 |
| 1956 | 397 | 136 | 35 | 112 | 87 | 27 | 445 | 23 | 76 | 120 | 26 | 200 |
| 1957 | 325 | 124 | 22 | 104 | 49 | 26 | 578 | 28 | 79 | 140 | 38 | 293 |
| 1958 | 318 | 147 | 41 | 75 | 33 | 22 | 479 | 23 | 59 | 112 | 22 | 263 |
| 1959 | 436 | 184 | 80 | 91 | 56 | 25 | 345 | 21 | 49 | 87 | 11 | 177 |
| 1960 | 388 | 123 | 60 | 100 | 80 | 25 | 389 | 18 | 61 | 128 | 2/ | 182 |
| 1961 | 330 | 154 | 47 | 59 | 44 | 26 | 350 | 23 | 65 | 115 | -- | 147 |
| 1962 | 395 | 188 | 86 | 56 | 65 | -- | 317 | 15 | 58 | 98 | -- | 146 |
| 1963 | 414 | 169 | 90 | 63 | 85 | 7 | 341 | 19 | 64 | 99 | -- | 159 |
| 1964 | 350 | 167 | 90 | 38 | 55 | -- | 314 | 20 | 49 | 96 | 2/ | 149 |
| 1965 | 410 | 206 | 110 | 25 | 58 | 11 | 300 | 16 | 45 | 87 | 2/ | 152 |
| 1966 | 473 | 215 | 108 | 57 | 92 | 1 | 301 | 18 | 53 | 72 | 4 | 154 |
| 1967 | 415 | 174 | 76 | 57 | 105 | 3 | 308 | 14 | 55 | 90 | 4 | 145 |
| 1968 | 405 | 199 | 72 | 44 | 82 | 8 | 200 | 11 | 22 | 51 | 2/ | 116 |
| 1969 | 456 | 216 | 91 | 63 | 86 | 2/ | 208 | 13 | 23 | 53 | -- | 119 |
| 1970 | 498 | 259 | 88 | 71 | 80 | -- | 208 | 16 | 30 | 52 | -- | 110 |
| 1971 | 514 | 268 | 120 | 68 | 58 | -- | 167 | 11 | 28 | 39 | -- | 89 |
| 1972 | 443 | 246 | 102 | 49 | 46 | -- | 181 | 13 | 24 | 53 | -- | 91 |
| 1973 | 387 | 231 | 70 | 49 | 37 | 2/ | 224 | 16 | 32 | 57 | -- | 119 |
| 1974 | 508 | 289 | 104 | 65 | 48 | 2 | 161 | 19 | 28 | 57 | -- | 57 |
| 1975 | 391 | 237 | 71 | 42 | 41 | 2/ | 146 | 25 | 37 | 38 | -- | 46 |
| 1976 | 437 | 281 | 73 | 35 | 48 | -- | 121 | 19 | 17 | 31 | -- | 54 |
| 1977 | 416 | 279 | 71 | 29 | 37 | -- | 94 | 16 | 19 | 26 | -- | 33 |
| 1978 | 491 | 347 | 69 | 30 | 45 | -- | 82 | 16 | 15 | 27 | -- | 24 |
| 1979 3/ | 567 | 358 | 127 | 27 | 55 | 2/ | 76 | 18 | 16 | 22 | 2/ | 20 |
| 1980 3/ | 518 | 384 | 65 | 35 | 34 | -- | 94 | 32 | 18 | 38 | -- | 6 |
| 1981 3/ | 512 | 414 | 51 | 27 | 20 | 2/ | 86 | 27 | 15 | 25 | -- | 19 |

1/ 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

2/ Less than 500 cords.

3/ Includes logs and bolts used in manufacturing particleboard and waferboard.

Table 11.-- Aspen and other hardwood[1/] pulpwood receipts in Wisconsin by area of origin, 1946-1981

(In thousand standard cords, unpeeled)[2/]

| Year | Aspen from: All areas | Wisconsin | Michigan | Minnesota | Other States | Canada | Other hardwoods from: All areas | Wisconsin | Michigan | Minnesota | Other States | Canada |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1946 | 416 | 202 | 157 | 57 | -- | -- | 3/ | 3/ | -- | 3/ | -- | -- |
| 1947 | 346 | 187 | 114 | 32 | -- | 13 | 3/ | 3/ | 3/ | -- | -- | -- |
| 1948 | 333 | 167 | 120 | 27 | -- | 19 | 3/ | 3/ | 3/ | -- | -- | -- |
| 1949 | 332 | 181 | 117 | 12 | -- | 22 | 3/ | -- | 3/ | -- | -- | -- |
| 1950 | 387 | 186 | 178 | 22 | -- | 1 | 21 | 20 | 1 | -- | 3/ | -- |
| 1951 | 569 | 270 | 220 | 56 | 3/ | 23 | 18 | 17 | 1 | -- | -- | -- |
| 1952 | 490 | 269 | 171 | 35 | -- | 15 | 15 | 15 | 3/ | -- | -- | -- |
| 1953 | 552 | 299 | 223 | 20 | -- | 10 | 42 | 41 | 1 | -- | 3/ | -- |
| 1954 | 566 | 336 | 207 | 13 | -- | 10 | 49 | 49 | -- | -- | -- | -- |
| 1955 | 590 | 345 | 229 | 10 | -- | 6 | 75 | 75 | -- | -- | -- | -- |
| 1956 | 754 | 492 | 240 | 21 | -- | 1 | 166 | 158 | 8 | -- | -- | -- |
| 1957 | 739 | 437 | 281 | 16 | -- | 5 | 183 | 172 | 11 | -- | -- | -- |
| 1958 | 583 | 355 | 213 | 11 | -- | 4 | 159 | 145 | 14 | 3/ | -- | -- |
| 1959 | 619 | 409 | 198 | 12 | -- | -- | 165 | 155 | 10 | -- | -- | -- |
| 1960 | 785 | 522 | 250 | 13 | -- | 3/ | 208 | 198 | 10 | -- | -- | -- |
| 1961 | 741 | 516 | 208 | 17 | -- | -- | 196 | 191 | 5 | -- | -- | -- |
| 1962 | 784 | 556 | 215 | 13 | -- | -- | 206 | 179 | 27 | -- | -- | -- |
| 1963 | 877 | 592 | 269 | 16 | -- | 3/ | 235 | 227 | 8 | -- | -- | -- |
| 1964 | 855 | 586 | 249 | 20 | -- | -- | 233 | 214 | 19 | 3/ | -- | -- |
| 1965 | 899 | 605 | 278 | 16 | -- | 3/ | 219 | 187 | 32 | -- | 3/ | -- |
| 1966 | 1,112 | 802 | 276 | 34 | -- | 3/ | 270 | 234 | 36 | 3/ | -- | -- |
| 1967 | 1,115 | 738 | 327 | 49 | -- | 1 | 259 | 199 | 39 | 21 | -- | -- |
| 1968 | 860 | 617 | 216 | 27 | -- | 3/ | 205 | 181 | 23 | 1 | -- | -- |
| 1969 | 978 | 688 | 250 | 40 | -- | 3/ | 278 | 233 | 44 | 1 | -- | -- |
| 1970 | 1,088 | 766 | 265 | 51 | -- | 6 | 333 | 292 | 40 | 1 | -- | -- |
| 1971 | 1,011 | 714 | 249 | 46 | -- | 2 | 295 | 264 | 31 | -- | -- | -- |
| 1972 | 902 | 660 | 207 | 35 | -- | -- | 354 | 326 | 28 | -- | -- | -- |
| 1973 | 1,006 | 754 | 196 | 56 | -- | 3/ | 398 | 367 | 31 | 3/ | -- | -- |
| 1974 | 1,109 | 791 | 228 | 90 | -- | 3/ | 558 | 494 | 62 | 2 | -- | -- |
| 1975 | 791 | 575 | 150 | 66 | -- | 3/ | 288 | 239 | 49 | 3/ | -- | -- |
| 1976 | 926 | 681 | 165 | 80 | -- | -- | 486 | 419 | 66 | 1 | -- | -- |
| 1977 | 915 | 684 | 163 | 68 | -- | -- | 445 | 377 | 67 | 1 | -- | -- |
| 1978 | 888 | 655 | 164 | 69 | -- | -- | 450 | 363 | 81 | 6 | -- | -- |
| 1979[4/] | 999 | 733 | 183 | 83 | -- | -- | 548 | 433 | 113 | 2 | -- | -- |
| 1980[4/] | 1,118 | 855 | 179 | 84 | -- | -- | 562 | 452 | 109 | 1 | -- | -- |
| 1981[4/] | 1,182 | 933 | 167 | 82 | -- | -- | 477 | 385 | 91 | 1 | -- | -- |

1/ "Other hardwoods" includes all hardwood roundwood (and chips from roundwood) except aspen and birch.

2/ 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

3/ Less than 500 cords.

4/ Includes logs and bolts used in manufacturing particleboard and waferboard.

Table 12.-- Receipts of residue for pulpwood in Wisconsin by area of origin, 1964-1981

(In thousand standard cords, unpeeled)[1/]

| Year | Softwoods from: | | | | | | Hardwoods from: | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All areas | Wisconsin | Michigan | Minnesota | Other States | Canada | All areas | Wisconsin | Michigan | Minnesota | Other States | Canada |
| 1964 | 96 | 11 | 5 | [2/] | 80 | -- | 92 | 53 | 37 | 2 | -- | -- |
| 1965 | 91 | 10 | 3 | 1 | 77 | -- | 92 | 63 | 27 | 2 | -- | -- |
| 1966 | 100 | 7 | 2 | 2 | 89 | -- | 89 | 58 | 30 | 1 | [2/] | -- |
| 1967 | 135 | 6 | 3 | 2 | 124 | -- | 124 | 81 | 31 | 12 | [2/] | -- |
| 1968 | 160 | 14 | 3 | 2 | 141 | -- | 118 | 81 | 32 | 5 | -- | -- |
| 1969 | 192 | 14 | 5 | 2 | 171 | -- | 121 | 83 | 37 | 1 | -- | -- |
| 1970 | 189 | 12 | 5 | 3 | 169 | -- | 152 | 81 | 69 | 2 | -- | -- |
| 1971 | 193 | 9 | 5 | 3 | 176 | -- | 140 | 85 | 55 | [2/] | -- | -- |
| 1972 | 198 | 10 | 3 | 1 | 184 | [2/] | 142 | 100 | 42 | -- | -- | -- |
| 1973 | 279 | 17 | 4 | 1 | 254 | 3 | 149 | 121 | 28 | -- | -- | -- |
| 1974 | 257 | 24 | 4 | [2/] | 221 | 8 | 189 | 157 | 31 | 1 | -- | -- |
| 1975 | 216 | 36 | 11 | [2/] | 135 | 34 | 165 | 122 | 43 | [2/] | [2/] | -- |
| 1976 | 256 | 38 | 8 | -- | 155 | 55 | 117 | 99 | 18 | [2/] | -- | -- |
| 1977 | 299 | 47 | 1 | -- | 189 | 62 | 124 | 105 | 18 | 1 | -- | -- |
| 1978 | 301 | 39 | [2/] | [2/] | 198 | 64 | 145 | 128 | 17 | [2/] | -- | -- |
| 1979[3/] | 332 | 46 | 3 | 6 | 206 | 71 | 192 | 170 | 9 | 7 | 6 | -- |
| 1980[3/] | 268 | 38 | 7 | 2 | 135 | 86 | 254 | 216 | 28 | 8 | 2 | -- |
| 1981[3/] | 252 | 47 | 5 | 2 | 142 | 56 | 259 | 219 | 36 | 3 | 1 | -- |

[1/] 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

[2/] Less than 500 cords.

[3/] Includes logs and bolts used in manufacturing particleboard and waferboard.

Table 13.--Pulpwood receipts in Wisconsin by species group and area of origin, 1981

(In thousand standard cords, unpeeled)[1/]

| Species group | Total | Area of origin | | | | |
|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Other States | Canada |
| Roundwood[2/] | | | | | | |
| Pine | 512 | 414 | 51 | 27 | 20 | [3/] |
| Balsam fir | 135 | 104 | 30 | 1 | -- | -- |
| Hemlock | 31 | 28 | 3 | -- | -- | -- |
| Spruce | 86 | 27 | 15 | 25 | -- | 19 |
| Tamarack | 31 | 5 | 1 | 25 | -- | [3/] |
| Aspen | 1,182 | 933 | 167 | 82 | -- | -- |
| Birch | 189 | 158 | 20 | 11 | -- | -- |
| Other hardwoods | 477 | 385 | 91 | 1 | -- | -- |
| Total | 2,643 | 2,054 | 378 | 172 | 20 | 19 |
| Residue | | | | | | |
| Softwoods | 252 | 47 | 5 | 2 | 142 | 56 |
| Hardwoods | 259 | 219 | 36 | 3 | 1 | -- |
| Total | 511 | 266 | 41 | 5 | 143 | 56 |
| All material | 3,154 | 2,320 | 419 | 177 | 163 | 75 |

[1/] 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.

[2/] Includes chips from roundwood.

[3/] Less than 500 cords.

Table 14.--Saw log production and receipts in Wisconsin by species group, 1973 and 1981

(In thousand board feet)[1/]

| Species group | Production | | | Receipts | | |
|---|---|---|---|---|---|---|
| | 1973 | 1981 | Change | 1973 | 1981 | Change |
| Softwoods | | | | | | |
| Cedar | 884 | 2,045 | 1,161 | 879 | 3,047 | 2,168 |
| Balsam fir | 448 | 5,150 | 4,702 | 1,890 | 7,154 | 5,264 |
| Hemlock | 7,031 | 8,913 | 1,882 | 7,095 | 9,638 | 2,543 |
| Jack pine | 2,945 | 5,043 | 2,098 | 4,295 | 6,921 | 2,626 |
| Red pine | 8,381 | 14,669 | 6,288 | 10,391 | 16,544 | 6,153 |
| White pine | 23,624 | 36,628 | 13,004 | 26,212 | 41,263 | 15,051 |
| Spruce | 259 | 3,147 | 2,888 | 303 | 4,368 | 4,065 |
| Tamarack | 69 | 88 | 19 | 69 | 183 | 114 |
| Total | 43,641 | 75,683 | 32,042 | 51,134 | 89,118 | 37,984 |
| Hardwoods | | | | | | |
| Ash | 8,669 | 11,860 | 3,191 | 8,654 | 12,116 | 3,462 |
| Aspen | 74,339 | 76,407 | 2,068 | 82,192 | 88,708 | 6,516 |
| Balsam poplar | 382 | 954 | 572 | 461 | 965 | 504 |
| Basswood | 21,258 | 28,039 | 6,781 | 21,935 | 29,275 | 7,340 |
| Beech | 2,029 | 2,702 | 673 | 2,066 | 2,766 | 700 |
| Paper birch | 6,797 | 9,186 | 2,389 | 7,950 | 10,579 | 2,629 |
| Yellow birch | 5,844 | 4,658 | -1,186 | 5,930 | 5,443 | -487 |
| Cottonwood | 1,598 | 1,378 | -220 | 1,710 | 1,383 | -327 |
| Elm | 58,064 | 42,840 | -15,224 | 58,687 | 45,962 | -12,725 |
| Hickory | 1,395 | 2,105 | 710 | 1,396 | 2,318 | 922 |
| Hard maple | 39,116 | 46,753 | 7,637 | 40,017 | 53,608 | 13,591 |
| Soft maple | 17,776 | 18,607 | 831 | 17,982 | 18,772 | 790 |
| Red oak | 84,669 | 132,565 | 47,896 | 87,894 | 139,242 | 51,348 |
| White oak | 18,527 | 34,490 | 15,963 | 18,684 | 35,932 | 17,248 |
| Walnut | 1,300 | 753 | -547 | 402 | 823 | 421 |
| Other hardwoods | 1,139 | 1,795 | 656 | 1,197 | 1,852 | 655 |
| Total | 342,902 | 415,092 | 72,190 | 357,157 | 449,744 | 92,587 |
| All species | 386,543 | 490,775 | 104,232 | 408,291 | 538,862 | 130,571 |

[1/] International 1/4-inch rule.

Table 15.--Saw log production by Forest Survey Unit, species group,and State of destination, Wisconsin, 1981

(In thousand board feet)[1/]

| Species group | All states | State of destination | | |
|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota |
| **ALL UNITS** | | | | |
| Softwoods | | | | |
| Cedar | 2,045 | 2,045 | -- | -- |
| Balsam fir | 5,150 | 5,150 | -- | -- |
| Hemlock | 8,913 | 8,913 | -- | -- |
| Jack pine | 5,043 | 5,043 | -- | -- |
| Red pine | 14,669 | 14,669 | -- | -- |
| White pine | 36,628 | 36,628 | -- | -- |
| Spruce | 3,147 | 3,147 | -- | -- |
| Tamarack | 88 | 88 | -- | -- |
| Total | 75,683 | 75,683 | -- | -- |
| Hardwoods | | | | |
| Ash | 11,860 | 11,808 | 52 | -- |
| Aspen | 76,407 | 76,302 | 89 | 16 |
| Balsam poplar | 954 | 954 | -- | -- |
| Basswood | 28,039 | 27,883 | 156 | -- |
| Beech | 2,702 | 2,702 | -- | -- |
| Paper birch | 9,186 | 9,160 | 26 | -- |
| Yellow birch | 4,658 | 4,648 | 10 | -- |
| Cottonwood | 1,378 | 1,377 | 1 | -- |
| Elm | 42,840 | 42,818 | 22 | -- |
| Hickory | 2,105 | 2,105 | -- | -- |
| Hard maple | 46,753 | 46,541 | 212 | -- |
| Soft maple | 18,607 | 18,549 | 58 | -- |
| Red oak | 132,565 | 132,454 | 111 | -- |
| White oak | 34,490 | 34,475 | 15 | -- |
| Walnut | 753 | 753 | -- | -- |
| Other hardwoods | 1,795 | 1,793 | 2 | -- |
| Total | 415,092 | 414,322 | 754 | 16 |
| All species | 490,775 | 490,005 | 754 | 16 |
| **NORTHEAST UNIT** | | | | |
| Softwoods | | | | |
| Cedar | 1,355 | 1,355 | -- | -- |
| Balsam fir | 1,309 | 1,309 | -- | -- |
| Hemlock | 7,721 | 7,721 | -- | -- |
| Jack pine | 1,151 | 1,151 | -- | -- |
| Red pine | 5,537 | 5,537 | -- | -- |
| White pine | 13,418 | 13,418 | -- | -- |
| Spruce | 823 | 823 | -- | -- |
| Tamarack | 9 | 9 | -- | -- |
| Total | 31,323 | 31,323 | -- | -- |
| Hardwoods | | | | |
| Ash | 2,847 | 2,795 | 52 | -- |
| Aspen | 36,743 | 36,654 | 89 | -- |
| Balsam poplar | 262 | 262 | -- | -- |
| Basswood | 8,598 | 8,442 | 156 | -- |
| Beech | 1,688 | 1,688 | -- | -- |
| Paper birch | 5,596 | 5,570 | 26 | -- |
| Yellow birch | 3,345 | 3,335 | 10 | -- |
| Cottonwood | 239 | 238 | 1 | -- |
| Elm | 20,240 | 20,218 | 22 | -- |
| Hickory | 510 | 510 | -- | -- |
| Hard maple | 22,554 | 22,342 | 212 | -- |
| Soft maple | 5,417 | 5,359 | 58 | -- |
| Red oak | 9,025 | 8,914 | 111 | -- |
| White oak | 755 | 740 | 15 | -- |
| Walnut | 1 | 1 | -- | -- |
| Other hardwoods | 409 | 407 | 2 | -- |
| Total | 118,229 | 117,475 | 754 | -- |
| All species | 149,552 | 148,798 | 754 | -- |

(Table 15 continued on next page)

[1/] International 1/4-inch rule.

(Table 15 continued)

| Species group | All states | State of destination | | |
|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota |
| **NORTHWEST UNIT** | | | | |
| Softwoods | | | | |
| Cedar | 134 | 134 | -- | -- |
| Balsam fir | 3,818 | 3,818 | -- | -- |
| Hemlock | 157 | 157 | -- | -- |
| Jack pine | 3,616 | 3,616 | -- | -- |
| Red pine | 6,600 | 6,600 | -- | -- |
| White pine | 9,163 | 9,163 | -- | -- |
| Spruce | 2,231 | 2,231 | -- | -- |
| Tamarack | 71 | 71 | -- | -- |
| Total | 25,790 | 25,790 | -- | -- |
| Hardwoods | | | | |
| Ash | 3,060 | 3,060 | -- | -- |
| Aspen | 24,679 | 24,679 | -- | -- |
| Balsam poplar | 502 | 502 | -- | -- |
| Basswood | 7,222 | 7,222 | -- | -- |
| Beech | 520 | 520 | -- | -- |
| Paper birch | 2,529 | 2,529 | -- | -- |
| Yellow birch | 798 | 798 | -- | -- |
| Cottonwood | 14 | 14 | -- | -- |
| Elm | 13,130 | 13,130 | -- | -- |
| Hickory | 40 | 40 | -- | -- |
| Hard maple | 8,525 | 8,525 | -- | -- |
| Soft maple | 2,483 | 2,483 | -- | -- |
| Red oak | 14,456 | 14,456 | -- | -- |
| White oak | 2,998 | 2,998 | -- | -- |
| Walnut | 25 | 25 | -- | -- |
| Other hardwoods | 134 | 134 | -- | -- |
| Total | 81,115 | 81,115 | -- | -- |
| All species | 106,905 | 106,905 | -- | -- |
| **CENTRAL UNIT** | | | | |
| Softwoods | | | | |
| Cedar | 137 | 137 | -- | -- |
| Balsam fir | 16 | 16 | -- | -- |
| Hemlock | 790 | 790 | -- | -- |
| Jack pine | 167 | 167 | -- | -- |
| Red pine | 1,974 | 1,974 | -- | -- |
| White pine | 10,053 | 10,053 | -- | -- |
| Spruce | 87 | 87 | -- | -- |
| Tamarack | -- | -- | -- | -- |
| Total | 13,224 | 13,224 | -- | -- |
| Hardwoods | | | | |
| Ash | 2,547 | 2,547 | -- | -- |
| Aspen | 10,876 | 10,876 | -- | -- |
| Balsam poplar | 11 | 11 | -- | -- |
| Basswood | 5,174 | 5,174 | -- | -- |
| Beech | 203 | 203 | -- | -- |
| Paper birch | 570 | 570 | -- | -- |
| Yellow birch | 497 | 497 | -- | -- |
| Cottonwood | 24 | 24 | -- | -- |
| Elm | 4,481 | 4,481 | -- | -- |
| Hickory | 367 | 367 | -- | -- |
| Hard maple | 7,277 | 7,277 | -- | -- |
| Soft maple | 4,941 | 4,941 | -- | -- |
| Red oak | 38,487 | 38,487 | -- | -- |
| White oak | 9,815 | 9,815 | -- | -- |
| Walnut | 24 | 24 | -- | -- |
| Other hardwoods | 220 | 220 | -- | -- |
| Total | 85,514 | 85,514 | -- | -- |
| All species | 98,738 | 98,738 | -- | -- |

(Table 15 continued on next page)

(Table 15 continued)

| Species group | All states | State of destination | | |
|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota |
| **SOUTHWEST UNIT** | | | | |
| Softwoods | | | | |
| Cedar | 2 | 2 | -- | -- |
| Balsam fir | -- | -- | -- | -- |
| Hemlock | -- | -- | -- | -- |
| Jack pine | 109 | 109 | -- | -- |
| Red pine | 486 | 486 | -- | -- |
| White pine | 3,404 | 3,404 | -- | -- |
| Spruce | 1 | 1 | -- | -- |
| Tamarack | -- | -- | -- | -- |
| Total | 4,002 | 4,002 | -- | -- |
| Hardwoods | | | | |
| Ash | 1,726 | 1,726 | -- | -- |
| Aspen | 3,367 | 3,351 | -- | 16 |
| Balsam poplar | 81 | 81 | -- | -- |
| Basswood | 5,958 | 5,958 | -- | -- |
| Beech | -- | -- | -- | -- |
| Paper birch | 256 | 256 | -- | -- |
| Yellow birch | 5 | 5 | -- | -- |
| Cottonwood | 421 | 421 | -- | -- |
| Elm | 3,981 | 3,981 | -- | -- |
| Hickory | 1,000 | 1,000 | -- | -- |
| Hard maple | 6,752 | 6,752 | -- | -- |
| Soft maple | 2,773 | 2,773 | -- | -- |
| Red oak | 64,521 | 64,521 | -- | -- |
| White oak | 16,389 | 16,389 | -- | -- |
| Walnut | 484 | 484 | -- | -- |
| Other hardwoods | 665 | 665 | -- | -- |
| Total | 108,379 | 108,363 | -- | 16 |
| All species | 112,381 | 112,365 | -- | 16 |
| **SOUTHEAST UNIT** | | | | |
| Softwoods | | | | |
| Cedar | 417 | 417 | -- | -- |
| Balsam fir | 7 | 7 | -- | -- |
| Hemlock | 245 | 245 | -- | -- |
| Jack pine | -- | -- | -- | -- |
| Red pine | 72 | 72 | -- | -- |
| White pine | 590 | 590 | -- | -- |
| Spruce | 5 | 5 | -- | -- |
| Tamarack | 8 | 8 | -- | -- |
| Total | 1,344 | 1,344 | -- | -- |
| Hardwoods | | | | |
| Ash | 1,680 | 1,680 | -- | -- |
| Aspen | 742 | 742 | -- | -- |
| Balsam poplar | 98 | 98 | -- | -- |
| Basswood | 1,087 | 1,087 | -- | -- |
| Beech | 291 | 291 | -- | -- |
| Paper birch | 235 | 235 | -- | -- |
| Yellow birch | 13 | 13 | -- | -- |
| Cottonwood | 680 | 680 | -- | -- |
| Elm | 1,008 | 1,008 | -- | -- |
| Hickory | 188 | 188 | -- | -- |
| Hard maple | 1,645 | 1,645 | -- | -- |
| Soft maple | 2,993 | 2,993 | -- | -- |
| Red oak | 6,076 | 6,076 | -- | -- |
| White oak | 4,533 | 4,533 | -- | -- |
| Walnut | 219 | 219 | -- | -- |
| Other hardwoods | 367 | 367 | -- | -- |
| Total | 21,855 | 21,855 | -- | -- |
| All species | 23,199 | 23,199 | -- | -- |

Table 16.--Saw log production by Forest Survey Unit, county and species group, Wisconsin, 1981

(In thousand board feet)[1/]

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Northeast Unit | | | | | | | | | | | | | |
| Florence | 5,267 | 13 | 14 | 577 | -- | 107 | 395 | 71 | -- | 72 | 597 | -- | 507 |
| Forest | 25,399 | 225 | 307 | 989 | 34 | 284 | 900 | 112 | -- | 177 | 7,855 | 1 | 1,355 |
| Langlade | 12,209 | 66 | 55 | 389 | 11 | 394 | 217 | 11 | -- | 496 | 2,610 | -- | 1,140 |
| Lincoln | 9,223 | 3 | 24 | 27 | 2 | 623 | 546 | 13 | 9 | 410 | 1,933 | -- | 679 |
| Marinette | 19,271 | 190 | 271 | 1,091 | 28 | 414 | 1,708 | 141 | -- | 263 | 6,900 | 162 | 1,035 |
| Menominee | 18,648 | 15 | -- | 3,645 | -- | 21 | 4,190 | 1 | -- | 108 | 243 | -- | 1,660 |
| Oconto | 14,930 | 143 | 136 | 227 | 116 | 401 | 381 | 72 | -- | 294 | 6,117 | 96 | 541 |
| Oneida | 15,678 | 103 | 301 | 114 | 514 | 1,724 | 2,184 | 216 | -- | 142 | 5,133 | -- | 282 |
| Shawano | 16,229 | 572 | 22 | 562 | -- | 270 | 690 | 8 | -- | 851 | 1,279 | 3 | 1,345 |
| Vilas | 12,698 | 25 | 179 | 100 | 446 | 1,299 | 2,207 | 178 | -- | 34 | 4,076 | -- | 54 |
| Total | 149,552 | 1,355 | 1,309 | 7,721 | 1,151 | 5,537 | 13,418 | 823 | 9 | 2,847 | 36,743 | 262 | 8,598 |
| Northwest Unit | | | | | | | | | | | | | |
| Ashland | 10,461 | 50 | 636 | 16 | 654 | 720 | 1,293 | 432 | 63 | 196 | 982 | -- | 489 |
| Barron | 6,604 | -- | -- | -- | 3 | 56 | 361 | -- | -- | 182 | 1,066 | -- | 444 |
| Bayfield | 12,356 | 5 | 1,559 | -- | 1,743 | 2,267 | 2,102 | 961 | -- | 24 | 2,069 | -- | 73 |
| Burnett | 3,317 | -- | -- | -- | 146 | 244 | 253 | -- | 2 | 69 | 878 | -- | 55 |
| Douglas | 1,931 | -- | 442 | -- | 25 | 161 | 157 | 58 | -- | 20 | 777 | -- | 25 |
| Iron | 7,744 | 42 | 309 | 11 | 298 | 444 | 488 | 254 | -- | 116 | 2,401 | -- | 258 |
| Polk | 8,121 | -- | -- | -- | 12 | 26 | 106 | -- | -- | 338 | 1,099 | -- | 628 |
| Price | 17,078 | 12 | 155 | 60 | 22 | 298 | 993 | 79 | 6 | 755 | 3,677 | -- | 2,562 |
| Rusk | 15,249 | -- | 1 | 6 | -- | 455 | 779 | 5 | -- | 488 | 4,521 | 502 | 1,466 |
| Sawyer | 11,055 | 2 | 325 | 16 | 329 | 511 | 1,276 | 196 | -- | 419 | 3,945 | -- | 569 |
| Taylor | 9,010 | 23 | 42 | 48 | -- | 808 | 965 | 29 | -- | 448 | 1,893 | -- | 572 |
| Washburn | 3,979 | -- | 349 | -- | 384 | 610 | 390 | 217 | -- | 5 | 1,371 | -- | 81 |
| Total | 106,905 | 134 | 3,818 | 157 | 3,616 | 6,600 | 9,163 | 2,231 | 71 | 3,060 | 24,679 | 502 | 7,222 |
| Central Unit | | | | | | | | | | | | | |
| Adams | 1,496 | -- | -- | -- | -- | 58 | 360 | -- | -- | 30 | 28 | -- | 26 |
| Chippewa | 15,735 | 1 | -- | -- | -- | 149 | 658 | -- | -- | 311 | 3,240 | -- | 762 |
| Clark | 13,271 | -- | -- | -- | -- | 195 | 1,413 | -- | -- | 412 | 2,024 | -- | 1,017 |
| Eau Claire | 7,885 | -- | 5 | -- | -- | 323 | 1,225 | 10 | -- | 93 | 615 | -- | 112 |
| Jackson | 6,340 | -- | -- | -- | 128 | 181 | 1,255 | 50 | -- | 39 | 309 | -- | 149 |
| Juneau | 6,179 | -- | -- | -- | -- | 70 | 394 | -- | -- | 66 | 1,140 | -- | 146 |
| Marathon | 12,634 | 30 | 11 | 478 | -- | 144 | 521 | 27 | -- | 527 | 1,404 | -- | 1,362 |
| Marquette | 838 | -- | -- | -- | -- | 33 | 75 | -- | -- | 19 | 14 | -- | 11 |
| Monroe | 9,342 | -- | -- | -- | -- | 128 | 1,020 | -- | -- | 89 | 204 | -- | 139 |
| Portage | 4,103 | 5 | -- | 55 | 8 | 211 | 794 | -- | -- | 64 | 562 | -- | 386 |
| Waupaca | 13,683 | 98 | -- | 257 | 3 | 47 | 1,452 | -- | -- | 587 | 564 | 11 | 727 |
| Waushara | 2,201 | -- | -- | -- | -- | 238 | 232 | -- | -- | 122 | 96 | -- | 24 |
| Wood | 5,031 | 3 | -- | -- | 28 | 197 | 654 | -- | -- | 188 | 676 | -- | 313 |
| Total | 98,738 | 137 | 16 | 790 | 167 | 1,974 | 10,053 | 87 | -- | 2,547 | 10,876 | 11 | 5,174 |

(Table 16 continued on next page)

[1/] International 1/4-inch rule.

(Table 16 continued)

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Southwest Unit | | | | | | | | | | | | | |
| Buffalo | 15,470 | -- | -- | -- | -- | 5 | 71 | -- | -- | 135 | 270 | 81 | 701 |
| Crawford | 6,990 | -- | -- | -- | -- | -- | -- | -- | -- | 126 | 54 | -- | 159 |
| Dunn | 14,215 | -- | -- | -- | 108 | 254 | 2,565 | -- | -- | 352 | 681 | -- | 1,038 |
| Grant | 8,149 | 1 | -- | -- | 1 | 11 | 5 | -- | -- | 62 | 51 | -- | 322 |
| Iowa | 5,353 | -- | -- | -- | -- | -- | 1 | -- | -- | 58 | 33 | -- | 159 |
| La Crosse | 6,727 | -- | -- | -- | -- | -- | 1 | -- | -- | 59 | 110 | -- | 112 |
| Lafayette | 310 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5 |
| Pepin | 3,465 | -- | -- | -- | -- | 56 | 254 | -- | -- | 66 | 77 | -- | 198 |
| Pierce | 5,413 | -- | -- | -- | -- | -- | 7 | -- | -- | 172 | 82 | -- | 1,393 |
| Richland | 6,878 | -- | -- | -- | -- | -- | 63 | -- | -- | 222 | 366 | -- | 482 |
| St. Croix | 783 | -- | -- | -- | -- | -- | 24 | -- | -- | 31 | 16 | -- | 43 |
| Sauk | 11,890 | 1 | -- | -- | -- | 4 | 56 | -- | -- | 118 | 529 | -- | 446 |
| Trempealeau | 13,405 | -- | -- | -- | -- | 134 | 261 | -- | -- | 81 | 828 | -- | 407 |
| Vernon | 13,333 | -- | -- | -- | -- | 22 | 96 | 1 | -- | 244 | 270 | -- | 493 |
| Total | 112,381 | 2 | -- | -- | 109 | 486 | 3,404 | 1 | -- | 1,726 | 3,367 | 81 | 5,958 |
| Southeast Unit | | | | | | | | | | | | | |
| Brown | 1,137 | 22 | 2 | -- | -- | 18 | 83 | -- | -- | 68 | 35 | 22 | 42 |
| Calumet | 491 | 2 | -- | -- | -- | -- | 9 | -- | -- | 20 | 7 | 2 | 93 |
| Columbia | 2,881 | -- | -- | -- | -- | 14 | 61 | -- | -- | 26 | 30 | -- | 119 |
| Dane | 1,966 | -- | -- | -- | -- | -- | -- | 1 | -- | 6 | 4 | -- | 55 |
| Dodge | 795 | 2 | -- | -- | -- | -- | -- | -- | -- | 126 | 1 | -- | 22 |
| Door | 928 | 130 | 4 | 57 | -- | 25 | 64 | 2 | 3 | 41 | 129 | 41 | 28 |
| Fond du Lac | 361 | 2 | 1 | -- | -- | 1 | 1 | -- | -- | 34 | 3 | -- | 40 |
| Green | 829 | -- | -- | -- | -- | -- | -- | -- | -- | 38 | -- | -- | 44 |
| Green Lake | 406 | -- | -- | -- | -- | 10 | 17 | -- | -- | 5 | 5 | -- | 2 |
| Jefferson | 447 | -- | -- | -- | -- | -- | -- | -- | -- | 39 | 1 | -- | 24 |
| Kenosha | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Kewaunee | 1,441 | 159 | -- | 83 | -- | -- | 60 | 1 | 2 | 138 | 117 | 29 | 58 |
| Manitowoc | 2,844 | 89 | -- | 105 | -- | 2 | 163 | -- | 2 | 191 | 57 | 3 | 117 |
| Milwaukee | 287 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11 |
| Outagamie | 2,166 | -- | -- | -- | -- | -- | 39 | -- | -- | 415 | 339 | 1 | 122 |
| Ozaukee | 291 | 3 | -- | -- | -- | -- | -- | -- | -- | 53 | 1 | -- | 7 |
| Racine | 723 | -- | -- | -- | -- | 2 | -- | 1 | -- | 26 | -- | -- | 21 |
| Rock | 1,113 | -- | -- | -- | -- | -- | -- | -- | -- | 18 | -- | -- | 29 |
| Sheboygan | 1,998 | 8 | -- | -- | -- | -- | 86 | -- | -- | 231 | 13 | -- | 189 |
| Walworth | 507 | -- | -- | -- | -- | -- | -- | -- | -- | 39 | -- | -- | 3 |
| Washington | 964 | -- | -- | -- | -- | -- | -- | -- | -- | 147 | -- | -- | 40 |
| Waukesha | 340 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 19 |
| Winnebago | 211 | -- | -- | -- | -- | -- | 7 | -- | 1 | 19 | -- | -- | 2 |
| Total | 23,199 | 417 | 7 | 245 | -- | 72 | 590 | 5 | 8 | 1,680 | 742 | 98 | 1,087 |
| State total | 490,775 | 2,045 | 5,150 | 8,913 | 5,043 | 14,669 | 36,628 | 3,147 | 88 | 11,860 | 76,407 | 954 | 28,039 |

(Table 16 continued on next page)

(Table 16 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Northeast Unit | | | | | | | | | | | | |
| Florence | -- | 74 | 238 | -- | 505 | -- | 1,811 | 85 | 187 | -- | -- | 14 |
| Forest | -- | 747 | 922 | -- | 5,251 | -- | 5,564 | 315 | 303 | -- | -- | 58 |
| Langlade | 405 | 497 | 241 | -- | 1,996 | 25 | 2,579 | 526 | 458 | 39 | -- | 54 |
| Lincoln | 45 | 385 | 84 | 170 | 1,187 | 182 | 1,329 | 548 | 1,005 | 4 | -- | 15 |
| Marinette | 147 | 724 | 286 | 7 | 607 | -- | 1,891 | 1,160 | 1,883 | 349 | -- | 14 |
| Menominee | 251 | 7 | 470 | -- | 4,705 | 16 | 2,399 | 220 | 641 | 4 | -- | 52 |
| Oconto | 196 | 804 | 346 | 35 | 1,665 | -- | 1,352 | 1,239 | 514 | 240 | -- | 15 |
| Oneida | -- | 1,178 | 225 | -- | 920 | -- | 1,049 | 324 | 1,259 | -- | -- | 10 |
| Shawano | 644 | 211 | 173 | 27 | 2,636 | 287 | 3,538 | 800 | 2,035 | 100 | 1 | 175 |
| Vilas | -- | 969 | 360 | -- | 768 | -- | 1,042 | 200 | 740 | 19 | -- | 2 |
| Total | 1,688 | 5,596 | 3,345 | 239 | 20,240 | 510 | 22,554 | 5,417 | 9,025 | 755 | 1 | 409 |
| Northwest Unit | | | | | | | | | | | | |
| Ashland | -- | 109 | 180 | -- | 3,133 | -- | 1,207 | 83 | 192 | 15 | -- | 11 |
| Barron | -- | 10 | 6 | 1 | 523 | 1 | 624 | 148 | 2,452 | 681 | -- | 46 |
| Bayfield | -- | 601 | 19 | -- | 16 | -- | 130 | 37 | 722 | 28 | -- | -- |
| Burnett | -- | 85 | -- | 3 | 107 | -- | 35 | 13 | 968 | 457 | -- | 2 |
| Douglas | -- | 42 | 3 | -- | -- | -- | 30 | 5 | 186 | -- | -- | -- |
| Iron | -- | 371 | 170 | -- | 1,196 | -- | 884 | 123 | 364 | 15 | -- | -- |
| Polk | -- | 31 | -- | 10 | 570 | 15 | 354 | 96 | 3,401 | 1,426 | -- | 9 |
| Price | 364 | 350 | 127 | -- | 3,467 | -- | 2,425 | 936 | 724 | 49 | 5 | 12 |
| Rusk | 52 | 17 | 104 | -- | 2,181 | 24 | 1,366 | 347 | 2,781 | 129 | 10 | 15 |
| Sawyer | 52 | 764 | 45 | -- | 776 | -- | 516 | 204 | 1,031 | 60 | -- | 19 |
| Taylor | 52 | 134 | 143 | -- | 1,105 | -- | 921 | 453 | 1,263 | 85 | 10 | 16 |
| Washburn | -- | 15 | 1 | -- | 56 | -- | 33 | 38 | 372 | 53 | -- | 4 |
| Total | 520 | 2,529 | 798 | 14 | 13,130 | 40 | 8,525 | 2,483 | 14,456 | 2,998 | 25 | 134 |
| Central Unit | | | | | | | | | | | | |
| Adams | -- | 11 | -- | 6 | 39 | 1 | 29 | 49 | 697 | 161 | -- | 1 |
| Chippewa | -- | 108 | 2 | -- | 617 | 12 | 516 | 465 | 7,122 | 1,770 | 2 | -- |
| Clark | -- | 8 | 107 | -- | 650 | 9 | 1,614 | 831 | 3,844 | 1,103 | 10 | 34 |
| Eau Claire | -- | 5 | 2 | 1 | 139 | 13 | 114 | 200 | 3,993 | 1,026 | 6 | 3 |
| Jackson | -- | 22 | -- | -- | 74 | 52 | 54 | 60 | 3,172 | 777 | 1 | 17 |
| Juneau | -- | 16 | -- | 16 | 130 | 24 | 137 | 204 | 3,129 | 706 | -- | 1 |
| Marathon | 108 | 176 | 329 | -- | 1,188 | 30 | 2,344 | 1,002 | 2,722 | 175 | 1 | 55 |
| Marquette | -- | 3 | 1 | -- | 18 | -- | 13 | 42 | 447 | 161 | -- | 1 |
| Monroe | -- | 17 | -- | 1 | 241 | 151 | 395 | 110 | 5,352 | 1,488 | 3 | 4 |
| Portage | -- | 14 | 3 | -- | 69 | 8 | 97 | 181 | 1,409 | 226 | -- | 11 |
| Waupaca | 95 | 155 | 37 | -- | 1,002 | 65 | 1,591 | 1,411 | 3,929 | 1,584 | -- | 68 |
| Waushara | -- | 23 | 5 | -- | 46 | 2 | 34 | 177 | 838 | 358 | -- | 6 |
| Wood | -- | 12 | 11 | -- | 268 | -- | 339 | 209 | 1,833 | 280 | 1 | 19 |
| Total | 203 | 570 | 497 | 24 | 4,481 | 367 | 7,277 | 4,941 | 38,487 | 9,815 | 24 | 220 |

(Table 16 continued on next page)

(Table 16 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Southwest Unit | | | | | | | | | | | | |
| Buffalo | -- | 58 | -- | 138 | 576 | 206 | 215 | 253 | 11,223 | 1,373 | 10 | 155 |
| Crawford | -- | 17 | -- | 11 | 245 | 50 | 382 | -- | 4,733 | 1,103 | 70 | 40 |
| Dunn | -- | 28 | 1 | 57 | 577 | 41 | 1,104 | 459 | 5,805 | 1,086 | -- | 59 |
| Grant | -- | -- | -- | 55 | 382 | 8 | 201 | 190 | 3,636 | 2,970 | 213 | 41 |
| Iowa | -- | -- | -- | 1 | 110 | 57 | 75 | 24 | 3,089 | 1,678 | 52 | 16 |
| La Crosse | -- | 22 | -- | 6 | 169 | 123 | 98 | 179 | 4,881 | 959 | 2 | 6 |
| Lafayette | -- | -- | -- | -- | 7 | -- | -- | -- | 37 | 249 | 7 | 5 |
| Pepin | -- | 5 | -- | 9 | 128 | 13 | 279 | 76 | 1,795 | 497 | -- | 12 |
| Pierce | -- | 21 | 4 | 58 | 631 | 26 | 1,401 | 127 | 1,248 | 239 | -- | 4 |
| Richland | -- | -- | -- | 10 | 245 | 27 | 1,235 | 111 | 3,051 | 941 | 74 | 51 |
| St. Croix | -- | -- | -- | -- | 71 | 5 | 83 | 37 | 396 | 36 | 5 | 36 |
| Sauk | -- | -- | -- | 10 | 205 | 85 | 425 | 565 | 7,637 | 1,652 | 40 | 117 |
| Trempealeau | -- | 68 | -- | 36 | 241 | 118 | 172 | 236 | 9,163 | 1,574 | -- | 86 |
| Vernon | -- | 37 | -- | 30 | 394 | 241 | 1,082 | 516 | 7,827 | 2,032 | 11 | 37 |
| Total | -- | 256 | 5 | 421 | 3,981 | 1,000 | 6,752 | 2,773 | 64,521 | 16,389 | 484 | 665 |
| Southeast Unit | | | | | | | | | | | | |
| Brown | 22 | 42 | 1 | 188 | 65 | -- | 70 | 86 | 249 | 111 | -- | 11 |
| Calumet | 7 | 1 | -- | 9 | 21 | 1 | 117 | 32 | 67 | 103 | -- | -- |
| Columbia | -- | -- | -- | 17 | 159 | 6 | 147 | 34 | 929 | 1,290 | 1 | 48 |
| Dane | -- | -- | -- | 3 | 22 | 16 | 29 | 23 | 1,095 | 545 | 58 | 109 |
| Dodge | -- | -- | -- | 19 | 36 | 6 | 98 | 32 | 220 | 203 | 2 | 28 |
| Door | 78 | 100 | 4 | 16 | 16 | -- | 50 | 25 | 103 | 4 | 1 | 7 |
| Fond du Lac | 5 | 2 | -- | 2 | 20 | 17 | 42 | 71 | 77 | 38 | -- | 5 |
| Green | -- | -- | -- | -- | 38 | 7 | 36 | 25 | 371 | 172 | 67 | 31 |
| Green Lake | 1 | 1 | -- | -- | 6 | 2 | 8 | 3 | 174 | 170 | -- | 2 |
| Jefferson | -- | -- | -- | 2 | 9 | 12 | 45 | -- | 111 | 168 | 6 | 30 |
| Kenosha | -- | -- | -- | 10 | 32 | -- | -- | -- | 18 | 10 | 3 | -- |
| Kewaunee | 41 | 31 | -- | 34 | 32 | -- | 64 | 545 | 35 | 10 | -- | 2 |
| Manitowoc | 69 | 53 | 8 | 64 | 40 | 1 | 241 | 1,012 | 487 | 135 | -- | 5 |
| Milwaukee | -- | -- | -- | 11 | 92 | -- | 22 | 22 | 43 | 86 | -- | -- |
| Outagamie | 1 | 2 | -- | 216 | 131 | 1 | 44 | 575 | 133 | 115 | 1 | 31 |
| Ozaukee | 1 | -- | -- | -- | 5 | -- | 8 | 179 | 24 | 10 | -- | -- |
| Racine | -- | -- | -- | 36 | 40 | 43 | 70 | 32 | 229 | 214 | 7 | 2 |
| Rock | -- | -- | -- | 17 | 70 | 16 | 65 | 76 | 432 | 303 | 49 | 38 |
| Sheboygan | 59 | 3 | -- | 10 | 109 | 18 | 231 | 118 | 613 | 304 | -- | 6 |
| Walworth | -- | -- | -- | 9 | -- | 22 | 30 | 5 | 209 | 157 | 24 | 9 |
| Washington | 7 | -- | -- | -- | 21 | 20 | 191 | 8 | 348 | 179 | -- | 3 |
| Waukesha | -- | -- | -- | 16 | 32 | -- | 32 | 32 | 69 | 140 | -- | -- |
| Winnebago | -- | -- | -- | 1 | 12 | -- | 5 | 58 | 40 | 66 | -- | -- |
| Total | 291 | 235 | 13 | 680 | 1,008 | 188 | 1,645 | 2,993 | 6,076 | 4,533 | 219 | 367 |
| State total | 2,702 | 9,186 | 4,658 | 1,378 | 42,840 | 2,105 | 46,753 | 18,607 | 132,565 | 34,490 | 753 | 1,795 |

Table 17.--Saw log receipts in Wisconsin by Forest Survey Unit, species group, and area of origin, 1981

(In thousand board feet)[1/]

| Species group | All areas | Area of origin | | | | | |
|---|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Iowa | Illinois | Canada |
| **ALL UNITS** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 3,047 | 2,045 | 997 | 5 | -- | -- | -- |
| Balsam fir | 7,154 | 5,150 | 1,088 | 916 | -- | -- | -- |
| Hemlock | 9,638 | 8,913 | 725 | -- | -- | -- | -- |
| Jack pine | 6,921 | 5,043 | 1,292 | 586 | -- | -- | -- |
| Red pine | 16,544 | 14,669 | 1,460 | 415 | -- | -- | -- |
| White pine | 41,263 | 36,628 | 4,198 | 437 | -- | -- | -- |
| Spruce | 4,368 | 3,147 | 831 | 390 | -- | -- | -- |
| Tamarack | 183 | 88 | 50 | 45 | -- | -- | -- |
| Total | 89,118 | 75,683 | 10,641 | 2,794 | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 12,116 | 11,808 | 214 | 93 | 1 | -- | -- |
| Aspen | 88,708 | 76,302 | 11,978 | 428 | -- | -- | -- |
| Balsam poplar | 965 | 954 | 11 | -- | -- | -- | -- |
| Basswood | 29,275 | 27,883 | 1,232 | 149 | 11 | -- | -- |
| Beech | 2,766 | 2,702 | 64 | -- | -- | -- | -- |
| Paper birch | 10,579 | 9,160 | 1,392 | 26 | -- | -- | 1 |
| Yellow birch | 5,443 | 4,648 | 795 | -- | -- | -- | -- |
| Cottonwood | 1,383 | 1,377 | -- | 6 | -- | -- | -- |
| Elm | 45,962 | 42,818 | 2,745 | 382 | 17 | -- | -- |
| Hickory | 2,318 | 2,105 | 99 | 114 | -- | -- | -- |
| Hard maple | 53,608 | 46,541 | 6,795 | 249 | 23 | -- | -- |
| Soft maple | 18,772 | 18,549 | 214 | 9 | -- | -- | -- |
| Red oak | 139,242 | 132,454 | 2,709 | 3,587 | 481 | 11 | -- |
| White oak | 35,932 | 34,475 | 493 | 770 | 168 | 26 | -- |
| Walnut | 823 | 753 | 2 | 13 | 55 | -- | -- |
| Other hardwoods | 1,852 | 1,793 | 53 | 5 | 1 | -- | -- |
| Total | 449,744 | 414,322 | 28,796 | 5,831 | 757 | 37 | 1 |
| All species | 538,862 | 490,005 | 39,437 | 8,625 | 757 | 37 | 1 |
| **NORTHEAST UNIT** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 2,161 | 1,273 | 888 | -- | -- | -- | -- |
| Balsam fir | 1,097 | 1,006 | 91 | -- | -- | -- | -- |
| Hemlock | 7,217 | 6,653 | 564 | -- | -- | -- | -- |
| Jack pine | 963 | 736 | 227 | -- | -- | -- | -- |
| Red pine | 5,887 | 5,130 | 757 | -- | -- | -- | -- |
| White pine | 16,167 | 12,714 | 3,453 | -- | -- | -- | -- |
| Spruce | 684 | 523 | 161 | -- | -- | -- | -- |
| Tamarack | 9 | 9 | -- | -- | -- | -- | -- |
| Total | 34,185 | 28,044 | 6,141 | -- | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 3,088 | 2,984 | 104 | -- | -- | -- | -- |
| Aspen | 49,386 | 37,966 | 11,420 | -- | -- | -- | -- |
| Balsam poplar | 284 | 273 | 11 | -- | -- | -- | -- |
| Basswood | 9,337 | 8,221 | 1,116 | -- | -- | -- | -- |
| Beech | 1,804 | 1,762 | 42 | -- | -- | -- | -- |
| Paper birch | 7,908 | 6,549 | 1,359 | -- | -- | -- | -- |
| Yellow birch | 3,838 | 3,380 | 458 | -- | -- | -- | -- |
| Cottonwood | 31 | 31 | -- | -- | -- | -- | -- |
| Elm | 24,630 | 22,067 | 2,563 | -- | -- | -- | -- |
| Hickory | 405 | 405 | -- | -- | -- | -- | -- |
| Hard maple | 30,131 | 24,768 | 5,363 | -- | -- | -- | -- |
| Soft maple | 5,937 | 5,766 | 171 | -- | -- | -- | -- |
| Red oak | 12,049 | 11,725 | 324 | -- | -- | -- | -- |
| White oak | 803 | 798 | 5 | -- | -- | -- | -- |
| Walnut | 2 | 2 | -- | -- | -- | -- | -- |
| Other hardwoods | 492 | 442 | 50 | -- | -- | -- | -- |
| Total | 150,125 | 127,139 | 22,986 | -- | -- | -- | -- |
| All species | 184,310 | 155,183 | 29,127 | -- | -- | -- | -- |

(Table 17 continued on next page)

[1/] International 1/4-inch rule.

(Table 17 continued)

| Species group | All areas | Area of origin | | | | | |
|---|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Iowa | Illinois | Canada |
| **NORTHWEST UNIT** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 161 | 86 | 70 | 5 | -- | -- | -- |
| Balsam fir | 6,021 | 4,108 | 997 | 916 | -- | -- | -- |
| Hemlock | 260 | 138 | 122 | -- | -- | -- | -- |
| Jack pine | 5,671 | 4,020 | 1,065 | 586 | -- | -- | -- |
| Red pine | 7,532 | 6,414 | 703 | 415 | -- | -- | -- |
| White pine | 9,165 | 8,083 | 645 | 437 | -- | -- | -- |
| Spruce | 3,369 | 2,359 | 620 | 390 | -- | -- | -- |
| Tamarack | 166 | 71 | 50 | 45 | -- | -- | -- |
| Total | 32,345 | 25,279 | 4,272 | 2,794 | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 2,186 | 2,149 | 22 | 15 | -- | -- | -- |
| Aspen | 20,474 | 19,514 | 553 | 407 | -- | -- | -- |
| Balsam poplar | 502 | 502 | -- | -- | -- | -- | -- |
| Basswood | 5,237 | 5,083 | 97 | 57 | -- | -- | -- |
| Beech | 542 | 520 | 22 | -- | -- | -- | -- |
| Paper birch | 1,463 | 1,462 | -- | 1 | -- | -- | -- |
| Yellow birch | 753 | 429 | 324 | -- | -- | -- | -- |
| Cottonwood | 20 | 14 | -- | 6 | -- | -- | -- |
| Elm | 10,050 | 9,877 | -- | 173 | -- | -- | -- |
| Hickory | 52 | 52 | -- | -- | -- | -- | -- |
| Hard maple | 6,571 | 5,360 | 1,199 | 12 | -- | -- | -- |
| Soft maple | 1,696 | 1,669 | 22 | 5 | -- | -- | -- |
| Red oak | 10,503 | 10,386 | 11 | 106 | -- | -- | -- |
| White oak | 2,537 | 2,505 | -- | 32 | -- | -- | -- |
| Walnut | 5 | 5 | -- | -- | -- | -- | -- |
| Other hardwoods | 79 | 79 | -- | -- | -- | -- | -- |
| Total | 62,670 | 59,606 | 2,250 | 814 | -- | -- | -- |
| All species | 95,015 | 84,885 | 6,522 | 3,608 | -- | -- | -- |
| **CENTRAL UNIT** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 245 | 206 | 39 | -- | -- | -- | -- |
| Balsam fir | 31 | 31 | -- | -- | -- | -- | -- |
| Hemlock | 1,507 | 1,468 | 39 | -- | -- | -- | -- |
| Jack pine | 70 | 70 | -- | -- | -- | -- | -- |
| Red pine | 2,372 | 2,372 | -- | -- | -- | -- | -- |
| White pine | 10,749 | 10,649 | 100 | -- | -- | -- | -- |
| Spruce | 309 | 259 | 50 | -- | -- | -- | -- |
| Total | 15,283 | 15,055 | 228 | -- | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 2,917 | 2,899 | 18 | -- | -- | -- | -- |
| Aspen | 14,815 | 14,815 | -- | -- | -- | -- | -- |
| Basswood | 6,485 | 6,485 | -- | -- | -- | -- | -- |
| Beech | 46 | 46 | -- | -- | -- | -- | -- |
| Paper birch | 566 | 556 | 10 | -- | -- | -- | -- |
| Yellow birch | 765 | 752 | 13 | -- | -- | -- | -- |
| Cottonwood | 433 | 433 | -- | -- | -- | -- | -- |
| Elm | 5,774 | 5,738 | 36 | -- | -- | -- | -- |
| Hickory | 397 | 397 | -- | -- | -- | -- | -- |
| Hard maple | 7,191 | 7,045 | 92 | 54 | -- | -- | -- |
| Soft maple | 5,022 | 5,001 | 21 | -- | -- | -- | -- |
| Red oak | 39,504 | 39,327 | 42 | 135 | -- | -- | -- |
| White oak | 10,730 | 10,649 | -- | 81 | -- | -- | -- |
| Walnut | 47 | 47 | -- | -- | -- | -- | -- |
| Other hardwoods | 266 | 266 | -- | -- | -- | -- | -- |
| Total | 94,958 | 94,456 | 232 | 270 | -- | -- | -- |
| All species | 110,241 | 109,511 | 460 | 270 | -- | -- | -- |

(Table 17 continued on next page)

(Table 17 continued)

| Species group | All areas | Area of origin | | | | | |
|---|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Iowa | Illinois | Canada |
| **SOUTHWEST UNIT** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 1 | 1 | -- | -- | -- | -- | -- |
| Jack pine | 217 | 217 | -- | -- | -- | -- | -- |
| Red pine | 445 | 445 | -- | -- | -- | -- | -- |
| White pine | 3,290 | 3,290 | -- | -- | -- | -- | -- |
| Spruce | 1 | 1 | -- | -- | -- | -- | -- |
| Total | 3,954 | 3,954 | -- | -- | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 1,936 | 1,787 | 78 | 70 | 1 | -- | -- |
| Aspen | 2,272 | 2,246 | 21 | 5 | -- | -- | -- |
| Balsam poplar | 81 | 81 | -- | -- | -- | -- | -- |
| Basswood | 6,304 | 6,182 | 92 | 19 | 11 | -- | -- |
| Paper birch | 331 | 283 | 25 | 23 | -- | -- | -- |
| Yellow birch | 4 | 4 | -- | -- | -- | -- | -- |
| Cottonwood | 383 | 383 | -- | -- | -- | -- | -- |
| Elm | 4,081 | 3,709 | 209 | 146 | 17 | -- | -- |
| Hickory | 1,226 | 1,013 | 114 | 99 | -- | -- | -- |
| Hard maple | 7,278 | 6,931 | 183 | 141 | 23 | -- | -- |
| Soft maple | 2,382 | 2,378 | 4 | -- | -- | -- | -- |
| Red oak | 70,505 | 64,346 | 3,346 | 2,332 | 481 | -- | -- |
| White oak | 17,791 | 16,478 | 657 | 488 | 168 | -- | -- |
| Walnut | 488 | 428 | 3 | 2 | 55 | -- | -- |
| Other hardwoods | 643 | 634 | 5 | 3 | 1 | -- | -- |
| Total | 115,705 | 106,883 | 4,737 | 3,328 | 757 | -- | -- |
| All species | 119,659 | 110,837 | 4,737 | 3,328 | 757 | -- | -- |
| **SOUTHEAST UNIT** | | | | | | | |
| Softwoods | | | | | | | |
| Cedar | 479 | 479 | -- | -- | -- | -- | -- |
| Balsam fir | 5 | 5 | -- | -- | -- | -- | -- |
| Hemlock | 654 | 654 | -- | -- | -- | -- | -- |
| Red pine | 308 | 308 | -- | -- | -- | -- | -- |
| White pine | 1,892 | 1,892 | -- | -- | -- | -- | -- |
| Spruce | 5 | 5 | -- | -- | -- | -- | -- |
| Tamarack | 8 | 8 | -- | -- | -- | -- | -- |
| Total | 3,351 | 3,351 | -- | -- | -- | -- | -- |
| Hardwoods | | | | | | | |
| Ash | 1,989 | 1,989 | -- | -- | -- | -- | -- |
| Aspen | 1,761 | 1,761 | -- | -- | -- | -- | -- |
| Balsam poplar | 98 | 98 | -- | -- | -- | -- | -- |
| Basswood | 1,912 | 1,912 | -- | -- | -- | -- | -- |
| Beech | 374 | 374 | -- | -- | -- | -- | -- |
| Paper birch | 311 | 310 | -- | -- | -- | -- | 1 |
| Yellow birch | 83 | 83 | -- | -- | -- | -- | -- |
| Cottonwood | 516 | 516 | -- | -- | -- | -- | -- |
| Elm | 1,427 | 1,427 | -- | -- | -- | -- | -- |
| Hickory | 238 | 238 | -- | -- | -- | -- | -- |
| Hard maple | 2,437 | 2,437 | -- | -- | -- | -- | -- |
| Soft maple | 3,735 | 3,735 | -- | -- | -- | -- | -- |
| Red oak | 6,681 | 6,670 | -- | -- | -- | 11 | -- |
| White oak | 4,071 | 4,045 | -- | -- | -- | 26 | -- |
| Walnut | 281 | 271 | -- | 10 | -- | -- | -- |
| Other hardwoods | 372 | 372 | -- | -- | -- | -- | -- |
| Total | 26,286 | 26,238 | -- | 10 | -- | 37 | 1 |
| All species | 29,637 | 29,589 | -- | 10 | -- | 37 | 1 |

Table 18.--Veneer log production and receipts in Wisconsin for selected years, 1946-1981

(In thousand board feet)[1/]

| Year | Production | Receipts |
|---|---|---|
| 1946 | 29,267 | 68,116 |
| 1948 | 32,026 | 71,791 |
| 1950 | 26,652 | 62,935 |
| 1952 | 29,956 | 59,500 |
| 1954 | 27,109 | 59,573 |
| 1956 | 30,403 | 66,949 |
| 1958 | 23,740 | 43,063 |
| 1960 | 25,467 | 51,298 |
| 1962 | 21,919 | 37,517 |
| 1963 | 25,203 | 41,918 |
| 1965 | 23,782 | 43,104 |
| 1966 | 22,867 | 42,162 |
| 1968 | 21,037 | 37,571 |
| 1970 | 15,814 | 29,896 |
| 1972 | 19,465 | 36,491 |
| 1973 | 32,224[2/] | 37,804 |
| 1974 | 37,342[2/] | 41,605 |
| 1975 | 31,692[2/] | 33,294 |
| 1976 | 31,685[2/] | 36,971 |
| 1980 | 20,863[2/] | 27,903 |
| 1981 | 27,250[2/] | 34,540 |

[1/] International 1/4-inch rule.

[2/] Includes Wisconsin veneer logs received at Iron Wood Products Co.; such receipts are not shown before 1973.

Table 19.--Veneer log production and receipts by species group in Wisconsin, 1973 and 1981

(In thousand board feet)[1/]

| Species group | Production | | | Receipts | | |
|---|---|---|---|---|---|---|
| | 1973 | 1981 | Change | 1973 | 1981 | Change |
| White pine | 45 | 44 | -1 | 45 | 174 | 129 |
| Ash | 355 | 290 | -65 | 463 | 590 | 127 |
| Aspen | 11,538 | 12,971 | 1,433 | 445 | 572 | 127 |
| Balsam poplar | 21 | -- | -21 | 21 | -- | -21 |
| Basswood | 1,149 | 1,042 | -107 | 2,140 | 1,575 | -565 |
| Beech | 41 | 4 | -37 | 581 | 67 | -514 |
| Paper birch | 195 | 441 | 246 | 769 | 576 | -193 |
| Yellow birch | 843 | 1,291 | 448 | 3,415 | 2,497 | -918 |
| Cottonwood | 54 | 83 | 29 | 1,109 | 521 | -588 |
| Elm | 4,890 | 1,988 | -2,902 | 5,999 | 2,370 | -3,629 |
| Hard maple | 4,090 | 2,321 | -1,769 | 11,442 | 12,744 | 1,302 |
| Soft maple | 654 | 511 | -143 | 1,000 | 1,179 | 179 |
| Red oak | 7,312 | 5,939 | -1,373 | 10,195 | 11,293 | 1,098 |
| White oak | 118 | 244 | 126 | 80 | 338 | 258 |
| Walnut | 667 | 34 | -633 | -- | -- | -- |
| Other species | 252 | 47 | -205 | 100 | 44 | -56 |
| All species | 32,224 | 27,250 | -4,974 | 37,804 | 34,540 | -3,264 |

[1/] International 1/4-inch rule.

Table 20.--Veneer log production by species group and State or country of destination, Wisconsin, 1981

(In thousand board feet)[1/]

| Species group | Total | Destination of wood | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Indiana | Kentucky | Minnesota | Canada | Other Countries |
| Softwoods | | | | | | | | |
| White pine | 44 | 44 | -- | -- | -- | -- | -- | -- |
| Total | 44 | 44 | -- | -- | -- | -- | -- | -- |
| Hardwoods | | | | | | | | |
| Ash | 290 | 290 | -- | -- | -- | -- | -- | -- |
| Aspen | 12,971 | 571 | 12,384 | -- | -- | 16 | -- | -- |
| Basswood | 1,042 | 1,042 | -- | -- | -- | -- | -- | -- |
| Beech | 4 | 4 | -- | -- | -- | -- | -- | -- |
| Paper birch | 441 | 441 | -- | -- | -- | -- | -- | -- |
| Yellow birch | 1,291 | 1,283 | -- | -- | -- | -- | -- | 8 |
| Cottonwood | 83 | 83 | -- | -- | -- | -- | -- | -- |
| Elm | 1,988 | 1,846 | -- | -- | -- | -- | 30 | 112 |
| Hard maple | 2,321 | 2,321 | -- | -- | -- | -- | -- | -- |
| Soft maple | 511 | 511 | -- | -- | -- | -- | -- | -- |
| Red oak | 5,939 | 5,641 | -- | 234 | -- | -- | -- | 64 |
| White oak | 244 | 145 | -- | -- | 23 | -- | -- | 76 |
| Walnut | 34 | -- | -- | -- | 34 | -- | -- | -- |
| Other hardwoods | 47 | 23 | -- | -- | | -- | 24 | -- |
| Total | 27,206 | 14,201 | 12,384 | 234 | 57 | 16 | 54 | 260 |
| All species | 27,250 | 14,245 | 12,384 | 234 | 57 | 16 | 54 | 260 |

[1/] International 1/4-inch rule.

Table 21.--Veneer log production by Forest Survey Unit, county, and species group, Wisconsin, 1981

(In thousand board feet)[1/]

| Unit and county | All species | Species group | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White pine | Ash | Aspen | Bass-wood | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Northeast Unit | | | | | | | | | | | | | | | | |
| Florence | 496 | 2 | 3 | -- | -- | -- | 19 | 239 | -- | 73 | 132 | -- | 28 | -- | -- | -- |
| Forest | 721 | -- | 1 | 6 | 71 | -- | 20 | 106 | -- | 238 | 245 | 2 | 27 | -- | -- | 5 |
| Langlade | 715 | -- | 3 | 37 | 63 | 2 | 15 | 47 | -- | 129 | 250 | 15 | 131 | 16 | -- | 7 |
| Lincoln | 369 | -- | 1 | 8 | 15 | -- | 21 | 33 | -- | 105 | 106 | 11 | 69 | -- | -- | -- |
| Marinette | 730 | 14 | 27 | -- | -- | -- | 56 | 28 | -- | 131 | 101 | 34 | 326 | 8 | -- | 5 |
| Menominee | 547 | -- | -- | -- | -- | -- | 9 | 167 | -- | 79 | 183 | 5 | 104 | -- | -- | -- |
| Oconto | 259 | -- | -- | -- | -- | -- | 27 | 29 | -- | 112 | 47 | 6 | 38 | -- | -- | -- |
| Oneida | 394 | -- | 11 | 1 | 20 | -- | 46 | 49 | -- | 20 | 62 | 5 | 180 | -- | -- | -- |
| Shawano | 1,370 | 1 | 38 | 49 | 152 | 2 | 20 | 42 | -- | 246 | 346 | 133 | 306 | 5 | -- | 30 |
| Vilas | 1,207 | -- | -- | 894 | -- | -- | 35 | 71 | -- | 20 | 84 | -- | 103 | -- | -- | -- |
| Total | 6,808 | 17 | 84 | 995 | 321 | 4 | 268 | 811 | -- | 1,153 | 1,556 | 211 | 1,312 | 29 | -- | 47 |
| Northwest Unit | | | | | | | | | | | | | | | | |
| Ashland | 265 | 6 | 27 | -- | 35 | -- | 14 | 56 | -- | 16 | 68 | -- | 43 | -- | -- | -- |
| Barron | 338 | 1 | -- | 64 | 44 | -- | 4 | 7 | -- | 29 | 9 | 5 | 175 | -- | -- | -- |
| Bayfield | 5,161 | 10 | -- | 4,947 | 28 | -- | 23 | 29 | -- | 16 | 70 | 16 | 22 | -- | -- | -- |
| Burnett | 86 | -- | -- | 3 | 6 | -- | 7 | 5 | -- | 6 | 14 | 1 | 44 | -- | -- | -- |
| Douglas | 1,274 | -- | -- | 1,201 | 16 | -- | 12 | 14 | -- | 14 | 17 | -- | -- | -- | -- | -- |
| Iron | 5,559 | -- | 23 | 5,356 | 21 | -- | 9 | 33 | -- | 17 | 24 | -- | 71 | 5 | -- | -- |
| Polk | 236 | -- | -- | 18 | 22 | -- | 5 | 5 | -- | 62 | 6 | 3 | 115 | -- | -- | -- |
| Price | 454 | -- | 37 | -- | 38 | -- | 17 | 63 | -- | 84 | 72 | 16 | 120 | 7 | -- | -- |
| Rusk | 625 | -- | -- | 96 | 86 | -- | 8 | 11 | -- | 70 | 19 | 9 | 326 | -- | -- | -- |
| Sawyer | 499 | 10 | 30 | 96 | 63 | -- | 18 | 50 | -- | 24 | 56 | 4 | 148 | -- | -- | -- |
| Taylor | 321 | -- | 20 | 3 | 75 | -- | 9 | 29 | -- | 46 | 71 | 10 | 58 | -- | -- | -- |
| Washburn | 337 | -- | -- | 170 | 17 | -- | 8 | 8 | -- | 40 | 11 | 2 | 81 | -- | -- | -- |
| Total | 15,155 | 27 | 137 | 11,954 | 451 | -- | 134 | 310 | -- | 424 | 437 | 66 | 1,203 | 12 | -- | -- |
| Central Unit | | | | | | | | | | | | | | | | |
| Adams | 38 | -- | -- | -- | -- | -- | -- | 5 | -- | 9 | 4 | -- | 20 | -- | -- | -- |
| Chippewa | 101 | -- | -- | 2 | 5 | -- | 5 | 8 | -- | 7 | -- | 1 | 73 | -- | -- | -- |
| Clark | 167 | -- | 1 | -- | 31 | -- | 8 | 16 | -- | 10 | 11 | 12 | 78 | -- | -- | -- |
| Eau Claire | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 6 | -- | -- | -- |
| Jackson | 122 | -- | -- | -- | 4 | -- | 7 | 7 | -- | 7 | 5 | 9 | 83 | -- | -- | -- |
| Juneau | 52 | -- | -- | -- | -- | -- | -- | 9 | -- | 16 | 5 | -- | 22 | -- | -- | -- |
| Marathon | 357 | -- | 9 | 18 | 47 | -- | 7 | 47 | -- | 68 | 75 | 25 | 61 | -- | -- | -- |
| Marquette | 38 | -- | -- | -- | -- | -- | -- | 15 | -- | -- | -- | 5 | 18 | -- | -- | -- |
| Monroe | 77 | -- | -- | -- | -- | -- | -- | -- | -- | 5 | 4 | 5 | 63 | -- | -- | -- |
| Portage | 39 | -- | -- | -- | -- | -- | -- | 9 | -- | 16 | 7 | -- | 7 | -- | -- | -- |
| Waupaca | 187 | -- | 2 | 1 | 12 | -- | 6 | 15 | -- | 18 | 20 | 65 | 40 | 8 | -- | -- |
| Waushara | 26 | -- | -- | -- | -- | -- | -- | 7 | -- | 6 | 6 | -- | 7 | -- | -- | -- |
| Wood | 64 | -- | -- | -- | -- | -- | -- | 9 | -- | 12 | 5 | -- | 38 | -- | -- | -- |
| Total | 1,278 | -- | 12 | 21 | 99 | -- | 33 | 147 | -- | 178 | 142 | 122 | 516 | 8 | -- | -- |

(Table 21 continued on next page)

(Table 21 continued)

| Unit and county | All species | Species group | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White pine | Ash | Aspen | Bass-wood | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Southwest Unit | | | | | | | | | | | | | | | | |
| Buffalo | 281 | -- | -- | 1 | 22 | -- | -- | -- | -- | 10 | 25 | 42 | 181 | -- | -- | -- |
| Crawford | 200 | -- | 28 | -- | -- | -- | -- | -- | -- | 19 | -- | -- | 133 | 20 | -- | -- |
| Dunn | 203 | -- | -- | -- | 52 | -- | -- | -- | -- | 9 | 16 | -- | 126 | -- | -- | -- |
| Grant | 300 | -- | 29 | -- | -- | -- | -- | -- | -- | 28 | 19 | 5 | 196 | 23 | -- | -- |
| Iowa | 55 | -- | -- | -- | -- | -- | -- | -- | -- | 11 | -- | -- | 35 | 9 | -- | -- |
| La Crosse | 1,281 | -- | -- | -- | -- | -- | -- | -- | -- | 6 | -- | -- | 1,202 | 73 | -- | -- |
| Lafayette | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12 | -- | -- | -- |
| Pepin | 49 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 45 | -- | -- | -- |
| Pierce | 119 | -- | -- | -- | -- | -- | -- | -- | 49 | 5 | -- | -- | 65 | -- | -- | -- |
| Richland | 221 | -- | -- | -- | 25 | -- | -- | -- | -- | 11 | 23 | 4 | 149 | 9 | -- | -- |
| St. Croix | 49 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 45 | -- | -- | -- |
| Sauk | 230 | -- | -- | -- | 5 | -- | -- | -- | -- | 16 | 27 | 10 | 158 | 14 | -- | -- |
| Trempealeau | 243 | -- | -- | -- | 62 | -- | -- | -- | -- | 6 | -- | 9 | 166 | -- | -- | -- |
| Vernon | 323 | -- | -- | -- | 5 | -- | -- | -- | -- | 7 | 22 | 5 | 260 | 24 | -- | -- |
| Total | 3,566 | -- | 57 | 1 | 171 | -- | -- | -- | 49 | 136 | 132 | 75 | 2,773 | 172 | -- | -- |
| Southeast Unit | | | | | | | | | | | | | | | | |
| Brown | 24 | -- | -- | -- | -- | -- | -- | -- | -- | 17 | 7 | -- | -- | -- | -- | -- |
| Calumet | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 4 | -- | -- | -- | -- | -- |
| Columbia | 54 | -- | -- | -- | -- | -- | -- | 8 | -- | -- | -- | -- | 25 | 10 | 11 | -- |
| Dane | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 31 | 13 | 13 | -- |
| Door | 58 | -- | -- | -- | -- | -- | 6 | 7 | -- | 30 | 15 | -- | -- | -- | -- | -- |
| Green | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8 | -- | -- | -- |
| Kewaunee | 16 | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 6 | -- | -- | -- | -- | -- |
| Manitowoc | 94 | -- | -- | -- | -- | -- | -- | -- | -- | 17 | 10 | -- | 57 | -- | 10 | -- |
| Outagamie | 100 | -- | -- | -- | -- | -- | -- | -- | 34 | 14 | 8 | 37 | 7 | -- | -- | -- |
| Rock | 7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7 | -- | -- | -- |
| Washington | 8 | -- | -- | -- | -- | -- | -- | 8 | -- | -- | -- | -- | -- | -- | -- | -- |
| Winnebago | 7 | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 4 | -- | -- | -- | -- | -- |
| Total | 443 | -- | -- | -- | -- | -- | 6 | 23 | 34 | 97 | 54 | 37 | 135 | 23 | 34 | -- |
| State total | 27,250 | 44 | 290 | 12,971 | 1,042 | 4 | 441 | 1,291 | 83 | 1,988 | 2,321 | 511 | 5,939 | 244 | 34 | 47 |

Table 22.--Veneer log receipts in Wisconsin by area of origin for selected years, 1946-1981

(In thousand board feet)[1/]

| Year | All areas | Area of origin | | | | |
|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Other States | Canada |
| 1946 | 68,116 | 28,813 | 33,834 | 1,139 | 919 | 3,411 |
| 1948 | 71,791 | 31,553 | 27,052 | 4,811 | 1,066 | 7,309[2/] |
| 1950 | 62,935 | 26,198 | 19,917 | 4,919 | 924 | 10,977[2/] |
| 1952 | 59,500 | 28,899 | 15,775 | 5,826 | 1,516 | 7,484 |
| 1954 | 59,573 | 26,527 | 15,537 | 7,962 | 3,286 | 6,261 |
| 1956 | 66,949 | 30,298 | 18,932 | 7,221 | 3,405 | 7,093 |
| 1958 | 43,063 | 23,488 | 8,078 | 7,027 | 916 | 3,554 |
| 1960 | 51,298 | 24,249 | 8,659 | 8,380 | 5,207 | 4,803 |
| 1962 | 37,517 | 18,846 | 4,950 | 6,177 | 2,777 | 4,767 |
| 1963 | 41,918 | 23,788 | 5,918 | 6,148 | 1,726 | 4,338 |
| 1965 | 43,104 | 22,547 | 8,044 | 6,111 | 1,621 | 4,781 |
| 1966 | 42,162 | 20,458 | 8,265 | 5,207 | 2,642 | 5,590 |
| 1968 | 37,571 | 18,853 | 8,001 | 3,518 | 2,679 | 4,520 |
| 1970 | 29,896 | 15,148 | 7,347 | 2,951 | 1,747 | 2,703 |
| 1972 | 36,491 | 18,172 | 10,893 | 3,457 | 1,552 | 2,417 |
| 1973 | 37,804 | 19,643 | 10,922 | 4,083 | 1,950 | 1,206 |
| 1974 | 41,605 | 24,294 | 10,221 | 3,486 | 1,905 | 1,699 |
| 1975 | 33,294 | 20,379 | 9,009 | 2,136 | 1,567 | 203 |
| 1976 | 36,971 | 20,752 | 10,280 | 3,033 | 2,412 | 494 |
| 1980 | 27,903 | 14,299 | 9,029 | 2,468 | 1,587 | 520 |
| 1981 | 34,540 | 14,245 | 14,058 | 2,501 | 3,008 | 728 |

[1/] International 1/4-inch rule.

[2/] Includes nominal quantity from other countries.

Table 23.--Veneer log receipts in Wisconsin by species group and area of origin, 1981

(In thousand board feet)[1/]

| Species group | All areas | Area of origin | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Wisconsin | Michigan | Minnesota | Iowa | Illinois | Canada | Pennsylvania | Indiana |
| Softwoods | | | | | | | | | |
| White pine | 174 | 44 | 130 | -- | -- | -- | -- | -- | -- |
| Total | 174 | 44 | 130 | -- | -- | -- | -- | -- | -- |
| Hardwoods | | | | | | | | | |
| Ash | 590 | 290 | 156 | 77 | 10 | 57 | -- | -- | -- |
| Aspen | 572 | 571 | -- | 1 | -- | -- | -- | -- | -- |
| Basswood | 1,575 | 1,042 | 161 | 305 | 67 | -- | -- | -- | -- |
| Beech | 67 | 4 | 63 | -- | -- | -- | -- | -- | -- |
| Paper birch | 576 | 441 | 78 | 57 | -- | -- | -- | -- | -- |
| Yellow birch | 2,497 | 1,283 | 944 | 10 | -- | -- | 260 | -- | -- |
| Cottonwood | 521 | 83 | -- | 438 | -- | -- | -- | -- | -- |
| Elm | 2,370 | 1,846 | 424 | 76 | -- | 24 | -- | -- | -- |
| Hard maple | 12,744 | 2,321 | 10,387 | 18 | 18 | -- | -- | -- | -- |
| Soft maple | 1,179 | 511 | 613 | 26 | 29 | -- | -- | -- | -- |
| Red oak | 11,293 | 5,641 | 1,071 | 1,441 | 1,112 | 780 | 468 | 520 | 260 |
| White oak | 338 | 145 | 10 | 52 | 21 | 37 | -- | 73 | -- |
| Other hardwoods | 44 | 23 | 21 | -- | -- | -- | -- | -- | -- |
| Total | 34,366 | 14,201 | 13,928 | 2,501 | 1,257 | 898 | 728 | 593 | 260 |
| All species | 34,540 | 14,245 | 14,058 | 2,501 | 1,257 | 898 | 728 | 593 | 260 |

[1/] International 1/4-inch rule.

Table 24.--Fuelwood production from roundwood by species group, Forest Survey Unit and county, Wisconsin, 1981

(In standard cords, unpeeled)[1/]

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Northeast Unit | | | | | | | | | | | | | |
| Florence | 11,894 | 111 | -- | -- | 15 | 25 | 19 | -- | -- | 10 | -- | -- | -- |
| Forest | 17,341 | -- | 19 | 19 | -- | -- | -- | -- | -- | 214 | 403 | -- | 10 |
| Langlade | 35,078 | -- | -- | -- | 141 | -- | -- | -- | -- | 1,174 | 2,737 | -- | -- |
| Lincoln | 33,695 | -- | -- | -- | 454 | 327 | 204 | -- | -- | 470 | 4,766 | -- | -- |
| Marinette | 23,294 | -- | -- | -- | -- | -- | -- | -- | -- | 125 | 3,540 | -- | -- |
| Menominee | 14,177 | -- | -- | -- | -- | -- | -- | -- | -- | 60 | -- | -- | -- |
| Oconto | 45,345 | -- | -- | -- | -- | -- | -- | -- | -- | 2,000 | 4,043 | -- | 1,015 |
| Oneida | 63,406 | 134 | 659 | 5,812 | 2,847 | 2,014 | 1,698 | 324 | 71 | 131 | 2,813 | -- | 5,535 |
| Shawano | 49,758 | -- | -- | -- | -- | -- | -- | -- | -- | 3,752 | 1,218 | -- | 609 |
| Vilas | 25,864 | 9 | 6 | 27 | 136 | 5,455 | 111 | 39 | 15 | 357 | 45 | -- | -- |
| Total | 319,852 | 254 | 684 | 5,858 | 3,593 | 7,821 | 2,032 | 363 | 86 | 8,293 | 19,565 | -- | 7,169 |
| Northwest Unit | | | | | | | | | | | | | |
| Ashland | 7,544 | 462 | -- | 462 | -- | -- | -- | 476 | -- | 278 | 23 | -- | -- |
| Barron | 23,144 | -- | -- | -- | -- | -- | -- | -- | -- | 1,832 | 2,305 | -- | 741 |
| Bayfield | 32,510 | 109 | 218 | -- | -- | -- | -- | -- | -- | 173 | 1,352 | 1 | 49 |
| Burnett | 31,549 | -- | -- | -- | 1,026 | 14 | 12 | -- | -- | 224 | 307 | -- | -- |
| Douglas | 14,757 | -- | -- | -- | 47 | 11 | 12 | 17 | -- | 2,879 | 2,914 | -- | 807 |
| Iron | 13,411 | -- | -- | -- | -- | -- | -- | -- | -- | 55 | -- | -- | 4,871 |
| Polk | 38,612 | -- | 1309 | -- | -- | -- | -- | -- | -- | -- | 632 | -- | -- |
| Price | 17,838 | -- | -- | -- | -- | -- | -- | -- | -- | 90 | 74 | -- | 9 |
| Rusk | 27,663 | -- | 873 | -- | 139 | 62 | 148 | -- | -- | 738 | 419 | -- | -- |
| Sawyer | 14,890 | -- | -- | -- | -- | -- | -- | -- | -- | 534 | 2,094 | -- | -- |
| Taylor | 34,559 | -- | -- | -- | 36 | 24 | 40 | -- | -- | 1,123 | 1,621 | 5 | 383 |
| Washburn | 13,415 | -- | -- | -- | 184 | 34 | 44 | -- | -- | 59 | 421 | 2 | 54 |
| Total | 269,892 | 571 | 2,400 | 462 | 1,432 | 145 | 256 | 493 | -- | 7,985 | 12,162 | 8 | 6,914 |
| Central Unit | | | | | | | | | | | | | |
| Adams | 49,645 | -- | -- | -- | 763 | 75 | 127 | -- | -- | 316 | 3,222 | -- | 231 |
| Chippewa | 51,151 | -- | -- | -- | -- | -- | -- | -- | -- | 3,621 | 3,834 | -- | -- |
| Clark | 15,031 | -- | -- | -- | 5 | -- | -- | -- | -- | 2,151 | 11 | -- | 50 |
| Eau Claire | 51,490 | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 21 | -- | -- |
| Jackson | 22,197 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 24 | -- | -- |
| Juneau | 33,925 | -- | 582 | -- | 2,524 | 74 | 187 | -- | -- | 652 | 1,423 | -- | 95 |
| Marathon | 89,517 | -- | -- | -- | 674 | 228 | 925 | -- | -- | 12,380 | 3,669 | -- | 99 |
| Marquette | 33,684 | -- | -- | -- | 433 | 48 | 171 | -- | -- | 473 | 710 | -- | -- |
| Monroe | 25,268 | -- | -- | -- | 1 | -- | -- | -- | -- | 500 | 3,402 | -- | -- |
| Portage | 17,775 | 111 | -- | -- | -- | -- | -- | -- | -- | 759 | 4,537 | -- | -- |
| Waupaca | 27,973 | -- | -- | -- | 19 | 7 | 24 | -- | -- | 2,133 | -- | -- | -- |
| Waushara | 35,503 | -- | -- | -- | 1374 | 351 | 934 | -- | -- | -- | 128 | -- | -- |
| Wood | 40,114 | -- | -- | -- | 59 | 4 | 12 | -- | -- | -- | 15,042 | -- | -- |
| Total | 493,273 | 111 | 582 | -- | 5,852 | 787 | 2,380 | -- | -- | 23,485 | 36,023 | -- | 475 |

(Table 24 continued on next page)

[1/] 128 cubic feet, consisting of 70 cubic feet of wood and 58 cubic feet of bark and air space.

(Table 24 continued)

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Southwest Unit | | | | | | | | | | | | | |
| Buffalo | 10,056 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 607 | -- | 405 |
| Crawford | 6,419 | -- | -- | -- | -- | -- | -- | -- | -- | 2 | -- | -- | 2 |
| Dunn | 38,619 | -- | 135 | -- | -- | -- | -- | -- | -- | 7,536 | 4,655 | -- | -- |
| Grant | 56,984 | -- | -- | -- | 622 | 610 | 1,197 | -- | -- | -- | 4,999 | -- | -- |
| Iowa | 46,790 | -- | -- | -- | -- | -- | -- | -- | -- | 815 | -- | -- | -- |
| La Crosse | 21,863 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lafayette | 1,741 | -- | -- | -- | -- | -- | -- | -- | -- | 210 | -- | -- | -- |
| Pepin | 21,047 | -- | -- | -- | -- | -- | -- | -- | -- | 378 | 1,548 | -- | 660 |
| Pierce | 11,926 | -- | -- | -- | -- | -- | -- | -- | -- | 70 | -- | -- | 70 |
| Richland | 33,841 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,069 | -- | -- |
| St. Croix | 28,740 | -- | -- | -- | 173 | 122 | 110 | -- | -- | -- | 4,371 | -- | -- |
| Sauk | 48,034 | -- | -- | -- | -- | -- | -- | -- | -- | 414 | 1,756 | -- | 841 |
| Trempealeau | 18,845 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 405 | -- | -- |
| Vernon | 20,398 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 365,303 | -- | 135 | -- | 795 | 732 | 1,307 | -- | -- | 9,425 | 19,410 | -- | 1,978 |
| Southeast Unit | | | | | | | | | | | | | |
| Brown | 19,784 | -- | -- | -- | -- | -- | -- | -- | 510 | 3,861 | 712 | -- | -- |
| Calumet | 3,475 | -- | -- | -- | -- | -- | -- | -- | -- | 226 | -- | -- | 311 |
| Columbia | 33,683 | -- | -- | -- | 6 | 34 | 12 | -- | -- | -- | 315 | -- | 1,896 |
| Dane | 47,188 | -- | -- | -- | -- | -- | -- | -- | -- | 852 | 734 | -- | 2,445 |
| Dodge | 10,490 | -- | -- | -- | 5 | 2 | 30 | -- | -- | 100 | 151 | 6 | 160 |
| Door | 15,267 | 619 | 291 | -- | -- | -- | -- | -- | -- | 736 | -- | -- | 783 |
| Fond du Lac | 6,314 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 257 | -- | -- |
| Green | 9,923 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Green Lake | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Jefferson | 17,753 | -- | -- | -- | -- | -- | -- | -- | -- | 1,064 | 520 | -- | -- |
| Kenosha | 22,019 | -- | -- | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- |
| Kewaunee | 8,084 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Manitowoc | 3,727 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 213 | -- | -- |
| Milwaukee | 12,158 | 715 | 16 | 84 | 71 | 24 | 238 | 8 | 56 | 297 | 335 | 39 | 100 |
| Outagamie | 75,656 | -- | -- | -- | 2 | 8 | 6,528 | -- | -- | 8,687 | 6,320 | 121 | 3,603 |
| Ozaukee | 21,825 | 231 | 3 | 22 | 276 | -- | 179 | 3 | 35 | 861 | 1,488 | 123 | 277 |
| Racine | 7,394 | -- | -- | -- | -- | -- | -- | -- | -- | 95 | 797 | 11 | 32 |
| Rock | 23,541 | -- | -- | -- | -- | -- | -- | -- | -- | 394 | -- | -- | -- |
| Sheboygan | 58,617 | -- | -- | -- | -- | -- | -- | -- | -- | 1,272 | 591 | -- | -- |
| Walworth | 2,642 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 66 | -- | 13 |
| Washington | 14,835 | -- | -- | -- | 62 | 15 | 214 | -- | -- | 881 | -- | -- | -- |
| Waukesha | 37,708 | -- | -- | -- | -- | -- | -- | -- | -- | 417 | 3,534 | 8 | 35 |
| Winnebago | 15,576 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 298 | -- | -- |
| Total | 467,659 | 1,565 | 310 | 106 | 422 | 83 | 7,201 | 11 | 601 | 19,843 | 16,331 | 308 | 9,655 |
| State total | 1,915,979 | 2,501 | 4,111 | 6,426 | 12,094 | 9,568 | 13,176 | 867 | 687 | 69,031 | 103,491 | 316 | 26,191 |

(Table 24 continued on next page)

(Table 24 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Northeast Unit | | | | | | | | | | | | |
| Florence | -- | 822 | 1,391 | -- | 4,998 | -- | 671 | 27 | 3,487 | -- | -- | 318 |
| Forest | -- | 640 | 495 | -- | 12,678 | -- | 2,032 | 117 | 478 | -- | -- | 236 |
| Langlade | -- | 349 | 179 | -- | 18,361 | 460 | 8,663 | 1,068 | 1,534 | -- | -- | 412 |
| Lincoln | -- | 5,483 | 1,112 | -- | 7,436 | 120 | 5,995 | 2,184 | 5,114 | -- | -- | 30 |
| Marinette | -- | 5,746 | 350 | -- | 730 | -- | 2,021 | 1,790 | 8,216 | 758 | -- | 18 |
| Menominee | -- | 76 | 224 | -- | 8,560 | 96 | 1,276 | 946 | 2,616 | 323 | -- | -- |
| Oconto | 1,947 | 11,227 | 1,859 | -- | 9,714 | -- | 5,974 | 4,411 | 3,022 | 133 | -- | -- |
| Oneida | -- | 14,994 | 1,493 | -- | 359 | -- | 9,594 | 6,674 | 8,252 | -- | -- | 2 |
| Shawano | -- | 2,193 | 1,170 | -- | 10,693 | 2,625 | 10,192 | 2,399 | 13,967 | 430 | -- | 510 |
| Vilas | -- | 3,309 | 755 | -- | 693 | -- | 8,325 | 1,153 | 4,530 | 542 | -- | 357 |
| Total | 1,947 | 44,839 | 9,028 | -- | 74,222 | 3,301 | 54,743 | 20,769 | 51,216 | 2,186 | -- | 1,883 |
| Northwest Unit | | | | | | | | | | | | |
| Ashland | -- | 145 | 47 | -- | 278 | -- | 4,587 | 786 | -- | -- | -- | -- |
| Barron | -- | 623 | 106 | -- | 3,198 | 12 | 560 | 167 | 11,416 | 1,889 | -- | 295 |
| Bayfield | -- | 3,997 | 813 | -- | 4,297 | -- | 10,122 | 2,590 | 7,988 | 799 | -- | 2 |
| Burnett | -- | 1,806 | 252 | -- | 4,206 | -- | 413 | 187 | 18,979 | 4,123 | -- | -- |
| Douglas | -- | 1,449 | 202 | -- | -- | -- | 1,171 | 444 | 4,074 | 730 | -- | -- |
| Iron | -- | 675 | 342 | -- | 1,953 | -- | 4,085 | 1,230 | 166 | 34 | -- | -- |
| Polk | -- | 525 | 92 | -- | 25,585 | -- | 187 | 49 | 8,333 | 1,900 | -- | -- |
| Price | -- | 713 | 276 | -- | 8,896 | -- | 5,898 | 1,828 | 8 | 2 | -- | 44 |
| Rusk | -- | 2,818 | 777 | -- | 4,653 | 1,453 | 2,400 | 3,521 | 7,986 | 1,676 | -- | -- |
| Sawyer | -- | 714 | 196 | -- | 1,567 | -- | 4,735 | 645 | 3,662 | 693 | -- | 50 |
| Taylor | -- | 1,412 | 649 | -- | 5,832 | 752 | 16,089 | 5,122 | 1,230 | 225 | -- | 16 |
| Washburn | -- | 1,624 | 295 | -- | 480 | 1 | 1,649 | 656 | 6,527 | 1,378 | -- | 7 |
| Total | -- | 16,501 | 4,047 | -- | 60,945 | 2,218 | 51,896 | 17,225 | 70,369 | 13,449 | -- | 414 |
| Central Unit | | | | | | | | | | | | |
| Adams | -- | 1,286 | 149 | -- | 609 | 52 | 497 | 1,041 | 32,344 | 8,844 | -- | 89 |
| Chippewa | -- | 2,990 | 859 | -- | 6,444 | 48 | 3,580 | 4,416 | 17,389 | 4,696 | -- | 3,274 |
| Clark | -- | 23 | -- | -- | 7,480 | -- | 1,506 | 1,209 | 2,019 | 577 | -- | -- |
| Eau Claire | -- | 2,638 | 551 | -- | 1,383 | -- | 333 | 380 | 35,739 | 9,945 | -- | -- |
| Jackson | -- | 76 | 2 | -- | 11,191 | -- | 1,091 | 1,210 | 6,773 | 1,830 | -- | -- |
| Juneau | -- | 548 | 146 | -- | 2,677 | 18 | 842 | 1,280 | 17,647 | 5,198 | -- | 32 |
| Marathon | -- | 5,633 | 3,698 | -- | 33,597 | 414 | 8,775 | 5,765 | 9,945 | 3,044 | -- | 671 |
| Marquette | -- | -- | -- | -- | -- | -- | -- | -- | 24,495 | 7,354 | -- | -- |
| Monroe | -- | 791 | 172 | -- | 2,895 | -- | 853 | 908 | 12,332 | 3,414 | -- | -- |
| Portage | -- | 825 | 354 | -- | 1,172 | -- | 1,079 | 961 | 5,998 | 1,811 | -- | 168 |
| Waupaca | -- | 1,368 | 470 | -- | 2,986 | 1,605 | 4,364 | 3,789 | 8,450 | 2,309 | -- | 449 |
| Waushara | -- | 549 | 156 | -- | 7,877 | -- | 19 | 22 | 18,191 | 5,305 | -- | 597 |
| Wood | -- | 1,826 | 528 | -- | 149 | -- | 3,021 | 3,542 | 12,275 | 3,656 | -- | -- |
| Total | -- | 18,553 | 7,085 | -- | 78,460 | 2,137 | 25,960 | 24,523 | 203,597 | 57,983 | -- | 5,280 |

(Table 24 continued on next page)

(Table 24 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Southwest Unit | | | | | | | | | | | | |
| Buffalo | -- | -- | -- | -- | 105 | -- | 1,425 | 841 | 4,849 | 1,824 | -- | -- |
| Crawford | -- | -- | -- | -- | 3,188 | 106 | 869 | 546 | 1,161 | 439 | -- | 106 |
| Dunn | -- | -- | -- | -- | 13,104 | -- | 739 | 416 | 8,693 | 2,936 | -- | 405 |
| Grant | -- | -- | -- | -- | 14,362 | 1,581 | 81 | -- | 18,149 | 6,820 | 80 | 8,483 |
| Iowa | -- | 954 | 18 | -- | 10,785 | -- | -- | -- | 21,536 | 8,045 | 1,409 | 3,228 |
| La Crosse | -- | 478 | 9 | -- | 3,281 | 244 | 4,994 | 4,072 | 3,027 | 1,143 | -- | 4,615 |
| Lafayette | -- | -- | -- | -- | 518 | -- | -- | -- | 148 | 55 | -- | 810 |
| Pepin | -- | 442 | -- | 109 | 8,541 | 620 | 692 | 970 | 4,937 | 1,849 | -- | 301 |
| Pierce | -- | -- | -- | 607 | 4,511 | 405 | 621 | 188 | 3,539 | 1,308 | -- | 607 |
| Richland | -- | 1,125 | 33 | -- | 21,331 | -- | 1,856 | 603 | 5,676 | 2,148 | -- | -- |
| St. Croix | -- | 298 | 6 | -- | 12,913 | -- | 281 | 124 | 6,547 | 2,480 | -- | 1,315 |
| Sauk | -- | 1,492 | 23 | 118 | 14,852 | 844 | 1,007 | 860 | 17,889 | 6,691 | -- | 1,247 |
| Trempealeau | -- | -- | -- | -- | 4,048 | -- | -- | -- | 10,470 | 3,922 | -- | -- |
| Vernon | -- | -- | -- | -- | 12,795 | -- | -- | -- | 5,325 | 1,974 | -- | 304 |
| Total | -- | 4,789 | 89 | 834 | 124,334 | 3,800 | 12,565 | 8,620 | 111,946 | 41,634 | 1,489 | 21,421 |
| Southeast Unit | | | | | | | | | | | | |
| Brown | -- | 1,384 | 426 | -- | 10,726 | -- | 428 | 157 | 664 | 482 | -- | 434 |
| Calumet | -- | -- | -- | -- | 1,050 | -- | 82 | 32 | 1,049 | 725 | -- | -- |
| Columbia | -- | -- | -- | 4 | 946 | -- | 75 | 30 | 17,965 | 12,026 | -- | 374 |
| Dane | -- | -- | -- | -- | 3,152 | 282 | 5,107 | 1,354 | 19,198 | 12,407 | -- | 1,657 |
| Dodge | 18 | 26 | 4 | 508 | 5,345 | 30 | 124 | 74 | 2,013 | 1,489 | 4 | 401 |
| Door | 881 | 6,623 | 1,071 | -- | 1,198 | -- | 1,346 | 454 | 629 | 502 | -- | 134 |
| Fond du Lac | -- | 272 | 64 | -- | 731 | 158 | 641 | 305 | 863 | 597 | -- | 2,426 |
| Green | -- | -- | -- | 789 | 6,080 | -- | 807 | 244 | 620 | 431 | 163 | 789 |
| Green Lake | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Jefferson | -- | 71 | 20 | -- | 2,294 | 495 | 1,479 | 550 | 1,457 | 1,024 | -- | 8,779 |
| Kenosha | -- | -- | -- | -- | 1,795 | -- | 4,956 | 1,417 | 8,062 | 5,689 | -- | -- |
| Kewaunee | -- | 319 | 75 | -- | 7,293 | -- | 75 | 25 | 170 | 127 | -- | -- |
| Manitowoc | -- | -- | -- | -- | 1,705 | -- | 204 | 84 | 194 | 144 | -- | 1,183 |
| Milwaukee | 111 | 283 | 57 | 21 | 5,325 | 110 | 1,456 | 604 | 505 | 365 | 11 | 1,327 |
| Outagamie | 273 | 1,218 | 349 | 178 | 28,440 | 556 | 7,450 | 4,019 | 2,012 | 1,457 | -- | 4,435 |
| Ozaukee | 155 | 1,700 | 321 | 49 | 2,254 | 384 | 3,759 | 1,927 | 3,042 | 2,212 | 3 | 2,521 |
| Racine | 22 | 85 | 17 | 7 | 179 | 1,692 | 201 | 100 | 2,152 | 1,557 | 3 | 444 |
| Rock | -- | -- | -- | -- | 2,410 | 276 | 1,360 | 731 | 9,824 | 6,423 | -- | 2,123 |
| Sheboygan | -- | -- | -- | -- | 41,508 | 89 | 1,720 | 640 | 6,290 | 4,320 | -- | 2,187 |
| Walworth | -- | -- | -- | -- | 118 | 53 | 88 | 30 | 1,220 | 857 | -- | 197 |
| Washington | -- | 150 | 47 | 500 | 5,737 | -- | 821 | 353 | 2,075 | 1,533 | -- | 2,447 |
| Waukesha | 16 | 757 | 111 | 11 | 7,008 | 2,803 | 1,277 | 666 | 7,854 | 5,511 | 7 | 7,693 |
| Winnebago | -- | 525 | 141 | -- | 5,330 | -- | -- | -- | 1,497 | 1,063 | -- | 6,722 |
| Total | 1,476 | 13,413 | 2,703 | 2,067 | 140,624 | 6,928 | 33,456 | 13,796 | 89,355 | 60,941 | 191 | 46,273 |
| State total | 3,423 | 98,095 | 22,952 | 2,901 | 478,585 | 18,384 | 178,620 | 84,933 | 526,483 | 176,193 | 1,680 | 75,271 |

Table 25.--Production of poles, piling, posts, and miscellaneous roundwood products[1/] by Forest Survey Unit, county and species group, Wisconsin, 1981

(In thousand cubic feet)

| County | All species | Species group | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Red pine | Aspen | Paper birch | Hard maple | Soft maple | Red oak | White oak | Other hardwoods |
| **NORTHEAST UNIT** | | | | | | | | | | |
| Forest | 94 | 93 | 1 | -- | -- | -- | -- | -- | -- | -- |
| Marinette | 21 | 21 | -- | -- | -- | -- | -- | -- | -- | -- |
| Oconto | 5 | -- | 5 | -- | -- | -- | -- | -- | -- | -- |
| Oneida | 16 | 3 | 13 | -- | -- | -- | -- | -- | -- | -- |
| Shawano | 289 | 269 | -- | -- | -- | 10 | 10 | -- | -- | -- |
| Total | 425 | 386 | 19 | -- | -- | 10 | 10 | -- | -- | -- |
| **NORTHWEST UNIT** | | | | | | | | | | |
| Barron | 366 | -- | 366 | -- | -- | -- | -- | -- | -- | -- |
| Bayfield | 8 | -- | 8 | -- | -- | -- | -- | -- | -- | -- |
| Burnett | 78 | -- | 78 | -- | -- | -- | -- | -- | -- | -- |
| Douglas | 14 | -- | 14 | -- | -- | -- | -- | -- | -- | -- |
| Polk | 10 | -- | 10 | -- | -- | -- | -- | -- | -- | -- |
| Price | 863 | 863 | -- | -- | -- | -- | -- | -- | -- | -- |
| Sawyer | 21 | 21 | -- | -- | -- | -- | -- | -- | -- | -- |
| Taylor | 22 | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| Washburn | 5 | -- | 5 | -- | -- | -- | -- | -- | -- | -- |
| Total | 1,387 | 906 | 481 | -- | -- | -- | -- | -- | -- | -- |
| **CENTRAL UNIT** | | | | | | | | | | |
| Adams | 42 | -- | -- | -- | -- | -- | -- | -- | -- | 42 |
| Chippewa | 424 | -- | 424 | -- | -- | -- | -- | -- | -- | -- |
| Eau Claire | 31 | -- | -- | 20 | 2 | -- | 6 | -- | -- | 3 |
| Jackson | 45 | -- | -- | 41 | 1 | -- | 2 | -- | -- | 1 |
| Juneau | 2 | -- | -- | -- | -- | -- | -- | -- | 2 | -- |
| Marathon | 5 | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| Monroe | 3 | -- | -- | -- | -- | -- | -- | -- | 3 | -- |
| Portage | 84 | -- | -- | -- | -- | -- | -- | 9 | 75 | -- |
| Waupaca | 1 | 1 | -- | -- | -- | -- | -- | -- | -- | -- |
| Waushara | 2 | -- | -- | -- | -- | -- | -- | 1 | 1 | -- |
| Total | 639 | 1 | 424 | 66 | 3 | -- | 8 | 10 | 81 | 46 |
| **SOUTHWEST UNIT** | | | | | | | | | | |
| Buffalo | 294 | -- | -- | 197 | 14 | -- | 55 | -- | -- | 28 |
| Crawford | 86 | -- | -- | -- | -- | -- | -- | 6 | 80 | -- |
| Dunn | 1,134 | -- | 1,134 | -- | -- | -- | -- | -- | -- | -- |
| Grant | 30 | -- | -- | -- | -- | -- | -- | -- | 30 | -- |
| Iowa | 3 | -- | -- | -- | -- | -- | -- | -- | 3 | -- |
| La Crosse | 184 | -- | -- | 159 | 1 | -- | 4 | 2 | 16 | 2 |
| Lafayette | 7 | -- | -- | -- | -- | -- | -- | -- | 7 | -- |
| Richland | 25 | -- | -- | -- | -- | -- | -- | -- | 25 | -- |
| Sauk | 147 | -- | -- | -- | -- | -- | -- | -- | 147 | -- |
| Trempealeau | 315 | -- | -- | 213 | 17 | -- | 55 | -- | -- | 30 |
| Vernon | 11 | -- | -- | -- | -- | -- | -- | -- | 11 | -- |
| Total | 2,236 | -- | 1,134 | 569 | 32 | -- | 114 | 8 | 319 | 60 |
| **SOUTHEAST UNIT** | | | | | | | | | | |
| Columbia | 14 | -- | -- | -- | -- | -- | -- | -- | 3 | 11 |
| Dane | 409 | -- | -- | -- | -- | -- | -- | 6 | 56 | 347 |
| Door | 81 | 81 | -- | -- | -- | -- | -- | -- | -- | -- |
| Green | 3 | -- | -- | -- | -- | -- | -- | -- | 3 | -- |
| Manitowoc | 65 | 65 | -- | -- | -- | -- | -- | -- | -- | -- |
| Ozaukee | 85 | 85 | -- | -- | -- | -- | -- | -- | -- | -- |
| Rock | 4 | -- | -- | -- | -- | -- | -- | -- | 4 | -- |
| Total | 661 | 231 | -- | -- | -- | -- | -- | 6 | 66 | 358 |
| State total | 5,348 | 1,524 | 2,058 | 635 | 35 | 10 | 132 | 24 | 466 | 464 |

[1/] Includes cooperage logs, charcoal bolts, and shavings bolts.

Table 26.--Output of roundwood products by type of product and species group, Wisconsin, 1981

(In thousand cubic feet)

| Species group | All products | Product | | | | | |
|---|---|---|---|---|---|---|---|
| | | Pulpwood | Saw logs | Fuelwood | Veneer logs | Posts | Other products |
| Softwoods | | | | | | | |
| Cedar | 2,121 | -- | 424 | 173 | -- | 1,510 | 14 |
| Balsam fir | 9,613 | 8,249 | 1,079 | 285 | -- | -- | -- |
| Hemlock | 4,249 | 2,285 | 1,514 | 450 | -- | -- | -- |
| Jack pine | 19,023 | 17,125 | 1,056 | 842 | -- | -- | -- |
| Red pine | 19,493 | 14,287 | 2,482 | 666 | -- | 1,931 | 127 |
| White pine | 8,821 | 1,676 | 6,220 | 920 | 5 | -- | -- |
| Spruce | 2,868 | 2,150 | 658 | 60 | -- | -- | -- |
| Tamarack | 453 | 389 | 17 | 47 | -- | -- | -- |
| Total | 66,641 | 46,161 | 13,450 | 3,443 | 5 | 3,441 | 141 |
| Hardwoods | | | | | | | |
| Ash | 9,938 | 2,969 | 2,108 | 4,819 | 42 | -- | -- |
| Aspen | 99,551 | 76,238 | 13,331 | 7,238 | 2,109 | 152 | 483 |
| Balsam poplar | 240 | 49 | 168 | 23 | -- | -- | -- |
| Basswood | 8,228 | 1,241 | 4,993 | 1,828 | 166 | -- | -- |
| Beech | 721 | 2 | 479 | 240 | -- | -- | -- |
| Paper birch | 18,921 | 10,333 | 1,627 | 6,859 | 67 | -- | 35 |
| Yellow birch | 4,847 | 2,221 | 825 | 1,596 | 205 | -- | -- |
| Cottonwood | 450 | 2 | 235 | 199 | 14 | -- | -- |
| Elm | 47,026 | 5,586 | 7,637 | 33,490 | 313 | -- | -- |
| Hickory | 1,682 | 39 | 362 | 1,281 | -- | -- | -- |
| Hard maple | 30,038 | 9,371 | 7,795 | 12,487 | 375 | -- | 10 |
| Soft maple | 14,460 | 5,016 | 3,304 | 5,928 | 80 | -- | 132 |
| Red oak | 65,841 | 4,797 | 23,219 | 36,836 | 965 | 23 | 1 |
| White oak | 20,189 | 1,338 | 6,028 | 12,321 | 36 | 345 | 121 |
| Walnut | 245 | -- | 123 | 117 | 5 | -- | -- |
| Other hardwoods | 6,318 | 285 | 310 | 5,252 | 7 | 400 | 64 |
| Total | 328,695 | 119,487 | 72,544 | 130,514 | 4,384 | 920 | 846 |
| All species | 395,336 | 165,648 | 85,994 | 133,957 | 4,389 | 4,361 | 987 |

Table 27.--Logging residue generated during roundwood production by species group, Forest Survey Unit and county, Wisconsin, 1981

(In thousand cubic feet)

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Northeast Unit | | | | | | | | | | | | | |
| Florence | 2,141 | 1 | 122 | 55 | 26 | 49 | 32 | 47 | 3 | 20 | 1,117 | -- | 54 |
| Forest | 6,080 | 33 | 541 | 107 | 21 | 117 | 64 | 172 | 3 | 76 | 2,422 | -- | 185 |
| Langlade | 3,709 | 6 | 155 | 32 | 7 | 73 | 15 | 26 | 3 | 118 | 1,596 | -- | 156 |
| Lincoln | 3,590 | -- | 81 | 11 | 37 | 112 | 63 | 21 | 7 | 154 | 1,718 | -- | 185 |
| Marinette | 6,422 | 20 | 287 | 96 | 405 | 215 | 129 | 101 | 3 | 75 | 3,564 | 16 | 109 |
| Menominee | 2,958 | 1 | -- | 529 | 69 | 6 | 294 | -- | -- | 26 | 701 | -- | 167 |
| Oconto | 2,899 | 14 | 48 | 27 | 263 | 199 | 31 | 14 | -- | 41 | 1,393 | 9 | 58 |
| Oneida | 5,622 | 10 | 495 | 18 | 190 | 272 | 185 | 115 | 12 | 83 | 2,580 | -- | 72 |
| Shawano | 2,374 | 89 | 3 | 48 | 29 | 115 | 50 | -- | 1 | 97 | 522 | -- | 141 |
| Vilas | 3,516 | 1 | 168 | 21 | 171 | 164 | 184 | 60 | -- | 22 | 1,627 | -- | 22 |
| Total | 39,311 | 175 | 1,900 | 944 | 1,218 | 1,322 | 1,047 | 556 | 32 | 712 | 17,240 | 25 | 1,149 |
| Northwest Unit | | | | | | | | | | | | | |
| Ashland | 3,726 | 5 | 278 | 10 | 116 | 190 | 105 | 90 | 14 | 90 | 1,472 | -- | 57 |
| Barron | 754 | -- | -- | -- | 2 | 56 | 27 | -- | -- | 20 | 150 | -- | 47 |
| Bayfield | 5,327 | -- | 170 | 6 | 511 | 235 | 166 | 93 | 1 | 49 | 3,101 | 12 | 8 |
| Burnett | 1,711 | -- | -- | -- | 457 | 61 | 18 | -- | 1 | 8 | 957 | -- | 5 |
| Douglas | 2,969 | -- | 52 | -- | 864 | 171 | 14 | 6 | -- | 7 | 1,713 | 6 | 2 |
| Iron | 2,644 | 4 | 55 | 6 | 33 | 34 | 39 | 26 | -- | 54 | 1,642 | -- | 43 |
| Polk | 844 | -- | -- | -- | 46 | 1 | 7 | -- | -- | 34 | 114 | -- | 64 |
| Price | 5,115 | 122 | 121 | 15 | 27 | 60 | 72 | 39 | 24 | 247 | 1,600 | -- | 297 |
| Rusk | 3,552 | -- | -- | 3 | 9 | 41 | 55 | -- | 2 | 161 | 1,608 | 51 | 230 |
| Sawyer | 4,442 | 3 | 132 | 11 | 107 | 94 | 95 | 33 | 15 | 120 | 2,709 | -- | 89 |
| Taylor | 2,843 | 4 | 54 | 18 | 19 | 80 | 68 | 10 | 6 | 128 | 1,191 | -- | 77 |
| Washburn | 1,969 | -- | 57 | -- | 252 | 89 | 37 | 26 | 1 | 19 | 1,242 | -- | 8 |
| Total | 35,896 | 138 | 919 | 69 | 2,443 | 1,112 | 703 | 323 | 64 | 937 | 17,499 | 69 | 927 |
| Central Unit | | | | | | | | | | | | | |
| Adams | 1,105 | -- | -- | -- | 327 | 370 | 48 | -- | -- | 6 | 16 | -- | 3 |
| Chippewa | 2,377 | -- | -- | 3 | 31 | 87 | 47 | -- | 3 | 59 | 743 | -- | 94 |
| Clark | 2,497 | -- | -- | 4 | 71 | 41 | 99 | -- | -- | 63 | 866 | -- | 103 |
| Eau Claire | 1,202 | -- | -- | -- | 204 | 87 | 89 | 1 | -- | 14 | 149 | -- | 11 |
| Jackson | 1,284 | -- | -- | -- | 283 | 82 | 94 | 5 | -- | 10 | 139 | -- | 16 |
| Juneau | 1,347 | -- | -- | -- | 287 | 110 | 51 | -- | -- | 12 | 173 | -- | 16 |
| Marathon | 2,442 | 3 | 12 | 43 | 19 | 76 | 40 | 10 | -- | 74 | 856 | -- | 138 |
| Marquette | 241 | -- | -- | -- | 30 | 45 | 8 | -- | -- | 1 | 15 | -- | 1 |
| Monroe | 1,202 | -- | -- | -- | 148 | 52 | 75 | -- | -- | 15 | 51 | -- | 14 |
| Portage | 821 | -- | -- | 5 | 93 | 88 | 84 | -- | 16 | 9 | 199 | -- | 40 |
| Waupaca | 1,579 | 9 | 1 | 18 | 25 | 100 | 118 | -- | -- | 63 | 162 | 1 | 74 |
| Waushara | 438 | -- | -- | -- | 47 | 184 | 38 | -- | -- | 12 | 10 | -- | 2 |
| Wood | 1,009 | -- | -- | -- | 60 | 38 | 74 | 1 | -- | 31 | 334 | -- | 32 |
| Total | 17,544 | 12 | 13 | 73 | 1,625 | 1,360 | 865 | 17 | 19 | 369 | 3,713 | 1 | 544 |

(Table 27 continued on next page)

(Table 27 continued)

| Unit and county | All species | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cedar | Balsam fir | Hemlock | Jack pine | Red pine | White pine | Spruce | Tamarack | Ash | Aspen | Balsam poplar | Basswood |
| Southwest Unit | | | | | | | | | | | | | |
| Buffalo | 1,603 | -- | -- | -- | 1 | -- | 6 | -- | -- | 14 | 83 | 8 | 72 |
| Crawford | 688 | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 6 | -- | 16 |
| Dunn | 1,699 | -- | -- | -- | 84 | 312 | 199 | -- | -- | 35 | 71 | -- | 107 |
| Grant | 809 | -- | -- | -- | -- | 1 | -- | -- | -- | 7 | 6 | -- | 32 |
| Iowa | 520 | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 3 | -- | 16 |
| La Crosse | 708 | -- | -- | -- | 1 | 4 | -- | -- | -- | 6 | 16 | -- | 11 |
| Lafayette | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pepin | 334 | -- | -- | -- | 4 | 5 | 18 | -- | -- | 7 | 8 | -- | 21 |
| Pierce | 519 | -- | -- | -- | -- | -- | -- | -- | -- | 16 | 8 | -- | 141 |
| Richland | 669 | -- | -- | -- | -- | -- | 5 | -- | -- | 22 | 38 | -- | 51 |
| St. Croix | 77 | -- | -- | -- | -- | -- | 1 | -- | -- | 4 | 1 | -- | 4 |
| Sauk | 1,291 | -- | -- | -- | 36 | 53 | 8 | -- | -- | 12 | 55 | -- | 46 |
| Trempealeau | 1,435 | -- | -- | -- | 4 | 40 | 20 | -- | -- | 8 | 144 | -- | 43 |
| Vernon | 1,302 | -- | -- | -- | -- | 1 | 7 | -- | -- | 24 | 29 | -- | 51 |
| Total | 11,685 | -- | -- | -- | 130 | 416 | 264 | -- | -- | 174 | 468 | 8 | 611 |
| Southeast Unit | | | | | | | | | | | | | |
| Brown | 127 | 1 | -- | -- | -- | 9 | 6 | -- | -- | 7 | 13 | 2 | 4 |
| Calumet | 45 | -- | -- | -- | -- | -- | -- | -- | -- | 2 | 1 | -- | 9 |
| Columbia | 405 | -- | -- | -- | 6 | 67 | 7 | -- | -- | 6 | 3 | -- | 11 |
| Dane | 193 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5 |
| Dodge | 77 | -- | -- | -- | -- | -- | -- | -- | -- | 12 | -- | -- | 2 |
| Door | 98 | 23 | -- | 4 | 1 | 1 | 5 | -- | -- | 4 | 13 | 4 | 5 |
| Fond du Lac | 34 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 4 |
| Green | 82 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 4 |
| Green Lake | 40 | -- | -- | -- | -- | 4 | 1 | -- | -- | -- | -- | -- | -- |
| Jefferson | 45 | -- | -- | -- | -- | -- | -- | -- | -- | 4 | -- | -- | 2 |
| Kenosha | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1 | -- | -- |
| Kewaunee | 145 | 14 | -- | 6 | -- | -- | 5 | -- | -- | 14 | 13 | 5 | 6 |
| Manitowoc | 275 | 17 | -- | 7 | -- | -- | 11 | -- | -- | 19 | 6 | -- | 11 |
| Milwaukee | 9 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Outagamie | 226 | -- | -- | -- | -- | 1 | 2 | -- | -- | 42 | 42 | -- | 12 |
| Ozaukee | 39 | 12 | -- | -- | -- | -- | -- | -- | -- | 5 | -- | -- | -- |
| Racine | 69 | -- | -- | -- | -- | -- | -- | -- | -- | 3 | -- | -- | 2 |
| Rock | 109 | -- | -- | -- | -- | -- | -- | -- | -- | 1 | -- | -- | 5 |
| Sheboygan | 187 | -- | -- | -- | -- | -- | 6 | -- | -- | 23 | 1 | -- | 19 |
| Walworth | 64 | -- | -- | -- | -- | 18 | -- | -- | -- | 4 | -- | -- | -- |
| Washington | 91 | -- | -- | -- | -- | -- | -- | -- | -- | 16 | -- | -- | 4 |
| Waukesha | 36 | -- | -- | -- | -- | 3 | -- | -- | -- | -- | -- | -- | 1 |
| Winnebago | 18 | -- | -- | -- | -- | -- | -- | -- | -- | 1 | -- | -- | -- |
| Total | 2,422 | 67 | -- | 17 | 7 | 103 | 43 | -- | -- | 171 | 93 | 11 | 106 |
| All counties | 106,858 | 392 | 2,832 | 1,103 | 5,423 | 4,313 | 2,922 | 896 | 115 | 2,363 | 39,013 | 114 | 3,337 |

(Table 27 continued on next page)

(Table 27 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Northeast Unit | | | | | | | | | | | | |
| Florence | -- | 100 | 59 | -- | 96 | -- | 265 | 47 | 41 | 4 | -- | 3 |
| Forest | -- | 351 | 155 | -- | 692 | -- | 867 | 167 | 72 | 11 | -- | 24 |
| Langlade | 41 | 179 | 84 | -- | 327 | 4 | 618 | 161 | 75 | 6 | -- | 27 |
| Lincoln | 4 | 205 | 50 | 16 | 202 | 19 | 333 | 197 | 167 | -- | -- | 8 |
| Marinette | 16 | 287 | 36 | -- | 137 | -- | 309 | 257 | 297 | 58 | -- | 5 |
| Menominee | 26 | 12 | 66 | -- | 561 | 6 | 283 | 105 | 90 | 6 | -- | 10 |
| Oconto | 21 | 156 | 38 | 4 | 187 | -- | 147 | 151 | 67 | 29 | -- | 2 |
| Oneida | -- | 627 | 77 | -- | 116 | -- | 323 | 168 | 257 | 7 | -- | 15 |
| Shawano | 66 | 33 | 26 | 3 | 351 | 36 | 379 | 114 | 235 | 13 | -- | 23 |
| Vilas | -- | 468 | 67 | -- | 92 | -- | 241 | 64 | 132 | 10 | -- | 2 |
| Total | 174 | 2,418 | 658 | 23 | 2,761 | 65 | 3,765 | 1,431 | 1,433 | 144 | -- | 119 |
| Northwest Unit | | | | | | | | | | | | |
| Ashland | -- | 205 | 100 | -- | 485 | -- | 329 | 118 | 52 | 5 | -- | 5 |
| Barron | -- | 9 | -- | -- | 53 | -- | 53 | 17 | 249 | 67 | -- | 4 |
| Bayfield | -- | 352 | 84 | -- | 178 | -- | 182 | 64 | 111 | 4 | -- | -- |
| Burnett | -- | 17 | -- | -- | 16 | -- | 16 | 9 | 100 | 46 | -- | -- |
| Douglas | -- | 96 | 1 | -- | 3 | -- | 12 | 3 | 19 | -- | -- | -- |
| Iron | -- | 134 | 59 | -- | 198 | -- | 190 | 60 | 62 | 4 | -- | 1 |
| Polk | -- | 4 | -- | 1 | 59 | 1 | 29 | 9 | 336 | 139 | -- | -- |
| Price | 37 | 391 | 124 | -- | 883 | -- | 582 | 265 | 177 | 26 | -- | 6 |
| Rusk | 5 | 189 | 55 | -- | 258 | 2 | 309 | 145 | 387 | 35 | 1 | 6 |
| Sawyer | 5 | 325 | 42 | -- | 107 | -- | 285 | 104 | 143 | 13 | -- | 10 |
| Taylor | 5 | 117 | 101 | -- | 314 | -- | 311 | 159 | 161 | 17 | 1 | 2 |
| Washburn | -- | 73 | 4 | -- | 20 | -- | 44 | 28 | 59 | 9 | -- | 1 |
| Total | 52 | 1,912 | 570 | 1 | 2,574 | 3 | 2,342 | 981 | 1,856 | 365 | 2 | 35 |
| Central Unit | | | | | | | | | | | | |
| Adams | -- | 4 | 1 | -- | 10 | -- | 8 | 10 | 227 | 75 | -- | -- |
| Chippewa | -- | 79 | 24 | -- | 95 | 1 | 87 | 86 | 747 | 191 | -- | -- |
| Clark | -- | 74 | 31 | -- | 111 | -- | 183 | 112 | 540 | 193 | 1 | 5 |
| Eau Claire | -- | 9 | 2 | -- | 21 | 1 | 17 | 34 | 446 | 115 | -- | 2 |
| Jackson | -- | 14 | 1 | -- | 16 | 5 | 10 | 18 | 464 | 125 | -- | 2 |
| Juneau | -- | 16 | -- | 1 | 25 | 2 | 27 | 36 | 455 | 136 | -- | -- |
| Marathon | 11 | 59 | 67 | -- | 212 | 5 | 270 | 141 | 375 | 25 | -- | 6 |
| Marquette | -- | 5 | -- | -- | 7 | -- | 10 | 11 | 76 | 32 | -- | -- |
| Monroe | -- | 9 | -- | -- | 34 | 15 | 46 | 24 | 563 | 156 | -- | -- |
| Portage | -- | 7 | -- | -- | 9 | -- | 14 | 24 | 182 | 50 | -- | 1 |
| Waupaca | 9 | 18 | 4 | -- | 107 | 6 | 143 | 152 | 403 | 159 | -- | 7 |
| Waushara | -- | 2 | -- | -- | 4 | -- | 3 | 19 | 83 | 34 | -- | -- |
| Wood | -- | 13 | 4 | -- | 37 | -- | 38 | 31 | 260 | 55 | -- | 1 |
| Total | 20 | 309 | 134 | 1 | 688 | 35 | 856 | 698 | 4,821 | 1,346 | 1 | 24 |

(Table 27 continued on next page)

(Table 27 continued)

| Unit and county | Species group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beech | Paper birch | Yellow birch | Cotton-wood | Elm | Hickory | Hard maple | Soft maple | Red oak | White oak | Walnut | Other hardwoods |
| Southwest Unit | | | | | | | | | | | | |
| Buffalo | -- | 10 | -- | 14 | 57 | 21 | 19 | 43 | 1,099 | 133 | 1 | 22 |
| Crawford | -- | 1 | -- | 1 | 25 | 5 | 32 | -- | 466 | 112 | 7 | 4 |
| Dunn | -- | 5 | -- | 5 | 57 | 4 | 92 | 46 | 571 | 105 | -- | 6 |
| Grant | -- | -- | -- | 5 | 41 | -- | 18 | 19 | 361 | 294 | 21 | 4 |
| Iowa | -- | -- | -- | -- | 11 | 5 | 6 | 2 | 302 | 163 | 5 | 1 |
| La Crosse | -- | 2 | -- | -- | 16 | 12 | 9 | 21 | 516 | 94 | -- | -- |
| Lafayette | -- | -- | -- | -- | -- | -- | -- | -- | 5 | 26 | -- | -- |
| Pepin | -- | -- | -- | -- | 13 | 1 | 23 | 8 | 177 | 48 | -- | 1 |
| Pierce | -- | 2 | -- | 7 | 62 | 3 | 118 | 13 | 124 | 25 | -- | -- |
| Richland | -- | -- | -- | 1 | 24 | 3 | 105 | 11 | 302 | 95 | 7 | 5 |
| St. Croix | -- | -- | -- | -- | 8 | -- | 6 | 4 | 40 | 5 | -- | 4 |
| Sauk | -- | 1 | -- | 1 | 24 | 10 | 42 | 62 | 758 | 168 | 4 | 11 |
| Trempealeau | -- | 11 | -- | 4 | 24 | 11 | 14 | 39 | 900 | 154 | -- | 19 |
| Vernon | -- | 4 | -- | 4 | 39 | 24 | 91 | 51 | 772 | 200 | 1 | 4 |
| Total | -- | 36 | -- | 42 | 401 | 99 | 575 | 319 | 6,393 | 1,622 | 46 | 81 |
| Southeast Unit | | | | | | | | | | | | |
| Brown | 2 | 4 | -- | 19 | 6 | -- | 6 | 10 | 25 | 12 | -- | 1 |
| Calumet | -- | -- | -- | -- | 2 | -- | 10 | 4 | 7 | 10 | -- | -- |
| Columbia | -- | 5 | -- | 1 | 21 | -- | 19 | 7 | 111 | 135 | -- | 6 |
| Dane | -- | -- | -- | -- | 2 | 1 | 3 | 2 | 106 | 54 | 6 | 14 |
| Dodge | -- | -- | -- | 1 | 4 | -- | 8 | 4 | 21 | 20 | -- | 5 |
| Door | 8 | 10 | -- | 1 | 2 | -- | 5 | 2 | 10 | -- | -- | -- |
| Fond du Lac | -- | -- | -- | -- | 2 | 1 | 4 | 7 | 8 | 4 | -- | -- |
| Green | -- | -- | -- | -- | 4 | -- | 3 | 2 | 37 | 17 | 7 | 4 |
| Green Lake | -- | -- | -- | -- | -- | -- | -- | -- | 18 | 17 | -- | -- |
| Jefferson | -- | -- | -- | -- | -- | 1 | 5 | -- | 12 | 17 | -- | 4 |
| Kenosha | -- | -- | -- | 1 | 4 | -- | -- | -- | 1 | 1 | -- | -- |
| Kewaunee | 4 | 4 | -- | 4 | 4 | -- | 5 | 55 | 5 | 1 | -- | -- |
| Manitowoc | 7 | 5 | -- | 6 | 4 | -- | 19 | 101 | 49 | 13 | -- | -- |
| Milwaukee | -- | -- | -- | -- | 4 | -- | 1 | 1 | 1 | 2 | -- | -- |
| Outagamie | -- | -- | -- | 23 | 13 | -- | 5 | 58 | 13 | 11 | -- | 4 |
| Ozaukee | -- | -- | -- | -- | -- | -- | -- | 19 | 2 | 1 | -- | -- |
| Racine | -- | -- | -- | 4 | 4 | 4 | 6 | 4 | 22 | 20 | -- | -- |
| Rock | -- | -- | -- | 1 | 7 | 1 | 5 | 8 | 42 | 30 | 5 | 4 |
| Sheboygan | 6 | -- | -- | 1 | 11 | 1 | 19 | 11 | 59 | 30 | -- | -- |
| Walworth | -- | -- | -- | -- | -- | 2 | 3 | -- | 20 | 15 | 2 | -- |
| Washington | -- | -- | -- | -- | 2 | 2 | 16 | -- | 33 | 18 | -- | -- |
| Waukesha | -- | -- | -- | 1 | 4 | -- | 3 | 4 | 7 | 13 | -- | -- |
| Winnebago | -- | -- | -- | -- | 1 | -- | -- | 6 | 4 | 6 | -- | -- |
| Total | 27 | 28 | -- | 63 | 101 | 13 | 145 | 305 | 613 | 447 | 20 | 42 |
| State total | 273 | 4,703 | 1,362 | 130 | 6,525 | 215 | 7,683 | 3,734 | 15,116 | 3,924 | 69 | 301 |

Table 28.--Residue produced at primary wood-using mills by type of material, type of use and county, Wisconsin, 1981

(In thousand tons green weight)

NORTHEAST UNIT

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Florence | | | | | | | | |
| Fiber products | 2.31 | 11.53 | 2.30 | 11.31 | .01 | .22 | -- | -- |
| Industrial fuel | .33 | 1.21 | -- | -- | .33 | 1.21 | .93 | 4.83 |
| Domestic fuel | .09 | .20 | .09 | .20 | -- | -- | .04 | .06 |
| Miscellaneous[4] | 1.05 | 5.27 | -- | -- | 1.05 | 5.27 | -- | -- |
| Total | 3.78 | 18.21 | 2.39 | 11.51 | 1.39 | 6.70 | .97 | 4.89 |
| Forest | | | | | | | | |
| Fiber products | .98 | 19.11 | .98 | 19.11 | -- | -- | -- | -- |
| Charcoal | -- | .03 | -- | .03 | -- | -- | -- | .01 |
| Industrial fuel | 1.49 | 8.99 | .85 | 2.45 | .64 | 6.54 | .72 | 9.17 |
| Domestic fuel | 3.38 | 2.91 | 2.22 | 1.84 | 1.16 | 1.07 | .64 | .78 |
| Miscellaneous[4] | .40 | 5.74 | -- | -- | .40 | 5.74 | -- | -- |
| Not used | .30 | .30 | .09 | -- | .21 | .30 | .04 | -- |
| Total | 6.55 | 37.08 | 4.14 | 23.43 | 2.41 | 13.65 | 1.40 | 9.96 |
| Langlade | | | | | | | | |
| Fiber products | -- | 2.42 | -- | 2.42 | -- | -- | -- | -- |
| Industrial fuel | 1.31 | 17.28 | .83 | 10.11 | .48 | 7.17 | .35 | 5.33 |
| Domestic fuel | 3.02 | 4.81 | 1.94 | 3.46 | 1.08 | 1.35 | .75 | 1.47 |
| Miscellaneous[4] | .21 | 3.01 | .09 | 1.06 | .12 | 1.95 | .04 | .45 |
| Not used | .15 | 1.28 | .11 | 1.15 | .04 | .13 | .04 | .50 |
| Total | 4.69 | 28.80 | 2.97 | 18.20 | 1.72 | 10.60 | 1.18 | 7.75 |
| Lincoln | | | | | | | | |
| Fiber products | -- | 3.34 | -- | 3.34 | -- | -- | -- | -- |
| Industrial fuel | -- | 2.55 | -- | .42 | -- | 2.13 | -- | 1.59 |
| Domestic fuel | .39 | .32 | .39 | .32 | -- | -- | .12 | .14 |
| Miscellaneous[4] | .21 | .17 | -- | -- | .21 | .17 | -- | -- |
| Not used | .02 | .07 | -- | -- | .02 | .07 | .04 | -- |
| Total | .62 | 6.45 | .39 | 4.08 | .23 | 2.37 | .16 | 1.73 |
| Marinette | | | | | | | | |
| Fiber products | .47 | 15.28 | .38 | 10.96 | .09 | 4.32 | -- | -- |
| Industrial fuel | 8.60 | 20.40 | 5.46 | 11.12 | 3.14 | 9.28 | 2.48 | 10.88 |
| Domestic fuel | 1.71 | 5.31 | 1.69 | 5.30 | .02 | .01 | .69 | 2.25 |
| Miscellaneous[4] | .85 | 7.64 | -- | -- | .85 | 7.64 | -- | -- |
| Not used | .33 | .41 | .04 | .34 | .29 | .07 | .01 | .14 |
| Total | 11.96 | 49.04 | 7.57 | 27.72 | 4.39 | 21.32 | 3.18 | 13.27 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Menominee | | | | | | | | |
| Fiber products | .44 | 2.03 | .44 | 2.03 | -- | -- | -- | -- |
| Industrial fuel | 13.38 | 19.39 | 8.30 | 11.51 | 5.08 | 7.88 | 3.71 | 5.70 |
| Total | 13.82 | 21.42 | 8.74 | 13.54 | 5.08 | 7.88 | 3.71 | 5.70 |
| Oconto | | | | | | | | |
| Fiber products | .29 | 8.16 | .29 | 8.16 | -- | -- | -- | -- |
| Industrial fuel | .04 | 8.46 | -- | 2.03 | .04 | 6.43 | .04 | 3.87 |
| Domestic fuel | .42 | 5.72 | .40 | 5.69 | .02 | .03 | .15 | 2.33 |
| Miscellaneous[4] | .37 | 4.86 | -- | -- | .37 | 4.86 | .09 | 1.15 |
| Not used | .06 | -- | .04 | -- | .02 | -- | .01 | -- |
| Total | 1.18 | 27.20 | .73 | 15.88 | .45 | 11.32 | .29 | 7.35 |
| Oneida | | | | | | | | |
| Fiber products | -- | 13.68 | -- | 13.68 | -- | -- | -- | -- |
| Industrial fuel | .16 | 11.75 | -- | -- | .16 | 11.75 | -- | 8.41 |
| Domestic fuel | 1.11 | 6.56 | 1.11 | 6.56 | -- | -- | .45 | .20 |
| Miscellaneous[4] | .16 | .01 | -- | -- | .16 | .01 | -- | -- |
| Not used | .52 | .03 | .12 | .01 | .40 | .02 | .05 | -- |
| Total | 1.95 | 32.03 | 1.23 | 20.25 | .72 | 11.78 | .50 | 8.61 |
| Shawano | | | | | | | | |
| Fiber products | 2.77 | 32.68 | 2.32 | 29.39 | .45 | 3.29 | -- | .77 |
| Industrial fuel | .39 | 11.86 | -- | .96 | .39 | 10.90 | .44 | 8.90 |
| Domestic fuel | 1.27 | 1.23 | 1.24 | 1.23 | .03 | -- | .40 | .53 |
| Miscellaneous[4] | 1.16 | 6.16 | -- | .01 | 1.16 | 6.15 | .55 | 3.50 |
| Not used | .01 | .10 | -- | -- | .01 | .10 | -- | .07 |
| Total | 5.60 | 52.03 | 3.56 | 31.59 | 2.04 | 20.44 | 1.39 | 13.77 |
| Vilas | | | | | | | | |
| Fiber products | 17.91 | 65.77 | 14.01 | 43.52 | 3.90 | 22.25 | -- | -- |
| Charcoal | -- | 1.19 | -- | .43 | -- | .76 | -- | -- |
| Industrial fuel | 3.62 | 2.66 | -- | .13 | 3.62 | 2.53 | 5.79 | 18.75 |
| Domestic fuel | .03 | .01 | .03 | .01 | -- | -- | -- | -- |
| Miscellaneous[4] | .64 | .14 | -- | .01 | .64 | .13 | -- | -- |
| Not used | .06 | .01 | .03 | -- | .03 | .01 | .02 | .01 |
| Total | 22.26 | 69.78 | 14.07 | 44.10 | 8.19 | 25.68 | 5.81 | 18.76 |
| All counties | | | | | | | | |
| Fiber products | 25.17 | 174.00 | 20.72 | 143.92 | 4.45 | 30.08 | -- | .77 |
| Charcoal | -- | 1.22 | -- | .46 | -- | .76 | -- | .01 |
| Industrial fuel | 29.32 | 104.55 | 15.44 | 38.73 | 13.88 | 65.82 | 14.46 | 77.43 |
| Domestic fuel | 11.42 | 27.07 | 9.11 | 24.61 | 2.31 | 2.46 | 3.24 | 7.76 |
| Miscellaneous[4] | 5.05 | 33.00 | .09 | 1.08 | 4.96 | 31.92 | .68 | 5.10 |
| Not used | 1.45 | 2.20 | .43 | 1.50 | 1.02 | .70 | .21 | .72 |
| Total | 72.41 | 342.04 | 45.79 | 210.30 | 26.62 | 131.74 | 18.59 | 91.79 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

NORTHWEST UNIT

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Ashland | | | | | | | | |
| Fiber products | 27.96 | 13.60 | 27.96 | 13.60 | -- | -- | .01 | .07 |
| Industrial fuel | .92 | 21.06 | .13 | 6.84 | .79 | 14.22 | 9.98 | 10.66 |
| Domestic fuel | 3.02 | .16 | 3.02 | .16 | -- | -- | .17 | .03 |
| Miscellaneous[4] | 17.33 | 4.54 | -- | -- | 17.33 | 4.54 | -- | -- |
| Not used | .11 | .04 | -- | -- | .11 | .04 | 1.10 | .05 |
| Total | 49.34 | 39.40 | 31.11 | 20.60 | 18.23 | 18.80 | 11.26 | 10.81 |
| Barron | | | | | | | | |
| Fiber products | -- | 6.68 | -- | 4.69 | -- | 1.99 | -- | -- |
| Industrial fuel | -- | 5.18 | -- | 3.59 | -- | 1.59 | .01 | 6.37 |
| Domestic fuel | .27 | 9.07 | .26 | 3.07 | .01 | 6.00 | .09 | .20 |
| Miscellaneous[4] | .17 | 2.94 | .02 | .04 | .15 | 2.90 | .02 | .04 |
| Total | .44 | 23.87 | .28 | 11.39 | .16 | 12.48 | .12 | 6.61 |
| Bayfield | | | | | | | | |
| Fiber products | -- | .14 | -- | .14 | -- | -- | -- | -- |
| Industrial fuel | -- | 2.06 | -- | 1.25 | -- | .81 | -- | .59 |
| Domestic fuel | .93 | .42 | .93 | .42 | -- | -- | .39 | .18 |
| Miscellaneous[4] | .01 | -- | -- | -- | .01 | -- | -- | -- |
| Not used | .68 | .77 | .11 | .34 | .57 | .43 | .04 | .15 |
| Total | 1.62 | 3.39 | 1.04 | 2.15 | .58 | 1.24 | .43 | .92 |
| Burnett | | | | | | | | |
| Charcoal | .02 | 5.28 | .02 | 4.99 | -- | .29 | .01 | 2.12 |
| Industrial fuel | .13 | .05 | .12 | .05 | .01 | -- | .49 | .02 |
| Domestic fuel | .25 | .13 | .25 | .13 | -- | -- | .11 | .05 |
| Miscellaneous[4] | .12 | 2.64 | -- | -- | .12 | 2.64 | -- | -- |
| Not used | .20 | .08 | .07 | -- | .13 | .08 | .03 | -- |
| Total | .72 | 8.18 | .46 | 5.17 | .26 | 3.01 | .64 | 2.19 |
| Douglas | | | | | | | | |
| Fiber products | 1.32 | -- | 1.32 | -- | -- | -- | -- | -- |
| Industrial fuel | 1.20 | 1.97 | .18 | .92 | 1.02 | 1.05 | .46 | .39 |
| Domestic fuel | .35 | .92 | .35 | .92 | -- | -- | .14 | .39 |
| Miscellaneous[4] | .08 | .10 | .07 | .06 | .01 | .04 | -- | .03 |
| Not used | .42 | .13 | .21 | .07 | .21 | .06 | .07 | .03 |
| Total | 3.37 | 3.12 | 2.13 | 1.97 | 1.24 | 1.15 | .67 | .84 |
| Iron | | | | | | | | |
| Fiber products | -- | .32 | -- | .20 | -- | .12 | -- | -- |
| Industrial fuel | -- | -- | -- | -- | -- | -- | -- | .09 |
| Miscellaneous[4] | .02 | -- | .01 | -- | .01 | -- | -- | -- |
| Not used | .05 | -- | .03 | -- | .02 | -- | .01 | -- |
| Total | .07 | .32 | .04 | .20 | .03 | .12 | .01 | .09 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1/] | | Fine[2/] | | Bark[3/] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Polk | | | | | | | | |
| Fiber products | .14 | 5.98 | .14 | 5.98 | -- | -- | -- | -- |
| Charcoal | .03 | 3.30 | .03 | 3.30 | -- | -- | .01 | 1.40 |
| Industrial fuel | .14 | 3.17 | .12 | .71 | .02 | 2.46 | .08 | 2.46 |
| Domestic fuel | .16 | .53 | .15 | .43 | .01 | .10 | .06 | .19 |
| Miscellaneous[4/] | .22 | 3.47 | -- | -- | .22 | 3.47 | .02 | .37 |
| Not used | .06 | .07 | .02 | .03 | .04 | .04 | .01 | .01 |
| Total | .75 | 16.52 | .46 | 10.45 | .29 | 6.07 | .18 | 4.43 |
| Price | | | | | | | | |
| Fiber products | .47 | 8.43 | .47 | 6.32 | -- | 2.11 | -- | -- |
| Industrial fuel | .46 | 24.40 | .11 | 13.98 | .35 | 10.42 | .22 | 8.51 |
| Domestic fuel | .39 | 2.67 | .39 | 2.67 | -- | -- | .11 | .76 |
| Miscellaneous[4/] | .26 | 1.33 | -- | -- | .26 | 1.33 | -- | -- |
| Not used | .10 | .92 | .10 | .90 | -- | .02 | .08 | .77 |
| Total | 1.68 | 37.75 | 1.07 | 23.87 | .61 | 13.88 | .41 | 10.04 |
| Rusk | | | | | | | | |
| Fiber products | -- | 6.74 | -- | 6.02 | -- | .72 | -- | -- |
| Industrial fuel | -- | -- | -- | -- | -- | -- | -- | 2.56 |
| Domestic fuel | .16 | .39 | .16 | .39 | -- | -- | .05 | .13 |
| Miscellaneous[4/] | .10 | 3.92 | -- | -- | .10 | 3.92 | -- | -- |
| Not used | .09 | 1.95 | .06 | 1.81 | .03 | .14 | .03 | .80 |
| Total | .35 | 13.00 | .22 | 8.22 | .13 | 4.78 | .08 | 3.49 |
| Sawyer | | | | | | | | |
| Fiber products | .10 | 2.89 | .10 | 2.57 | -- | .32 | .04 | .01 |
| Industrial fuel | -- | 2.33 | -- | .90 | -- | 1.43 | -- | 1.58 |
| Domestic fuel | 1.07 | 1.45 | 1.07 | 1.45 | -- | -- | .45 | .50 |
| Miscellaneous[4/] | .28 | .62 | -- | .02 | .28 | .60 | -- | .01 |
| Not used | .48 | .55 | .06 | -- | .42 | .55 | .02 | -- |
| Total | 1.93 | 7.84 | 1.23 | 4.94 | .70 | 2.90 | .51 | 2.10 |
| Taylor | | | | | | | | |
| Fiber products | -- | .18 | -- | -- | -- | .18 | -- | -- |
| Industrial fuel | 3.35 | 1.08 | 1.21 | .39 | 2.14 | .69 | .52 | .17 |
| Domestic fuel | 3.06 | 2.94 | 3.06 | 2.94 | -- | -- | 1.18 | .79 |
| Miscellaneous[4/] | .46 | 1.14 | -- | -- | .46 | 1.14 | .08 | .02 |
| Not used | .18 | .12 | .17 | .11 | .01 | .01 | .09 | .47 |
| Total | 7.05 | 5.46 | 4.44 | 3.44 | 2.61 | 2.02 | 1.87 | 1.45 |

(Table 28 continued on next page)

[1/] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2/] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3/] Does not include bark at pulp and flakeboard mills.

[4/] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1/] | | Fine[2/] | | Bark[3/] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Washburn | | | | | | | | |
| Fiber products | -- | 3.27 | -- | 3.27 | -- | -- | -- | -- |
| Industrial fuel | -- | 5.14 | -- | 1.40 | -- | 3.74 | -- | 2.29 |
| Domestic fuel | .55 | .18 | .55 | .18 | -- | -- | .22 | .07 |
| Miscellaneous[4/] | .50 | .14 | -- | -- | .50 | .14 | -- | -- |
| Not used | .46 | .12 | .41 | .10 | .05 | .02 | .17 | .04 |
| Total | 1.51 | 8.85 | .96 | 4.95 | .55 | 3.90 | .39 | 2.40 |
| All counties | | | | | | | | |
| Fiber products | 29.99 | 48.23 | 29.99 | 42.79 | -- | 5.44 | .05 | .08 |
| Charcoal | .05 | 8.58 | .05 | 8.29 | -- | .29 | .02 | 3.52 |
| Industrial fuel | 6.20 | 66.44 | 1.87 | 30.03 | 4.33 | 36.41 | 11.76 | 35.69 |
| Domestic fuel | 10.21 | 18.86 | 10.19 | 12.76 | .02 | 6.10 | 2.97 | 3.29 |
| Miscellaneous[4/] | 19.55 | 20.84 | .10 | .12 | 19.45 | 20.72 | .12 | .47 |
| Not used | 2.83 | 4.75 | 1.24 | 3.36 | 1.59 | 1.39 | 1.65 | 2.32 |
| Total | 68.83 | 167.70 | 43.44 | 97.35 | 25.39 | 70.35 | 16.57 | 45.37 |
| CENTRAL UNIT | | | | | | | | |
| Adams | | | | | | | | |
| Domestic fuel | .18 | 4.90 | .18 | 4.90 | -- | -- | -- | -- |
| Miscellaneous[4/] | .02 | .86 | -- | -- | .02 | .86 | -- | -- |
| Not used | .09 | 2.00 | -- | -- | .09 | 2.00 | .08 | 2.08 |
| Total | .29 | 7.76 | .18 | 4.90 | .11 | 2.86 | .08 | 2.08 |
| Chippewa | | | | | | | | |
| Fiber products | 1.31 | 19.49 | 1.12 | 16.77 | .19 | 2.72 | -- | -- |
| Industrial fuel | .47 | 9.96 | -- | 1.85 | .47 | 8.11 | .48 | 7.93 |
| Domestic fuel | .80 | 10.20 | .80 | 10.13 | -- | .07 | .30 | 1.56 |
| Miscellaneous[4/] | .46 | 7.38 | -- | .98 | .46 | 6.40 | .06 | 3.19 |
| Total | 3.04 | 47.03 | 1.92 | 29.73 | 1.12 | 17.30 | .84 | 12.68 |
| Clark | | | | | | | | |
| Fiber products | -- | 3.02 | -- | 3.02 | -- | -- | -- | -- |
| Industrial fuel | -- | 5.04 | -- | 2.07 | -- | 2.97 | -- | 2.17 |
| Domestic fuel | 1.41 | 12.38 | 1.41 | 11.09 | -- | 1.29 | .61 | 5.15 |
| Miscellaneous[4/] | .82 | 5.12 | -- | -- | .82 | 5.12 | -- | -- |
| Not used | -- | .04 | -- | -- | -- | .04 | -- | -- |
| Total | 2.23 | 25.60 | 1.41 | 16.18 | .82 | 9.42 | .61 | 7.32 |

(Table 28 continued on next page)

[1/] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2/] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3/] Does not include bark at pulp and flakeboard mills.

[4/] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Eau Claire | | | | | | | | |
| Industrial fuel | .34 | 1.67 | .34 | 1.67 | -- | -- | .29 | 1.42 |
| Domestic fuel | .67 | 1.48 | .67 | 1.48 | -- | -- | .03 | .03 |
| Miscellaneous[4] | .78 | 3.65 | .34 | 1.67 | .44 | 1.98 | -- | -- |
| Not used | .35 | .82 | -- | -- | .35 | .82 | .26 | .60 |
| Total | 2.14 | 7.62 | 1.35 | 4.82 | .79 | 2.80 | .58 | 2.05 |
| Jackson | | | | | | | | |
| Fiber products | -- | 1.74 | -- | 1.74 | -- | -- | -- | -- |
| Industrial fuel | -- | -- | -- | -- | -- | -- | -- | 1.40 |
| Domestic fuel | .13 | 1.83 | .13 | 1.83 | -- | -- | .06 | .04 |
| Miscellaneous[4] | .23 | 2.05 | .14 | -- | .09 | 2.05 | -- | .07 |
| Not used | .09 | .02 | .01 | -- | .08 | .02 | .04 | -- |
| Total | .45 | 5.64 | .28 | 3.57 | .17 | 2.07 | .10 | 1.51 |
| Juneau | | | | | | | | |
| Fiber products | .21 | 2.03 | .16 | 2.03 | .05 | -- | -- | -- |
| Industrial fuel | -- | 1.46 | -- | -- | -- | 1.46 | .03 | 1.06 |
| Domestic fuel | .22 | 4.76 | .19 | 3.75 | .03 | 1.01 | .12 | 2.06 |
| Miscellaneous[4] | .24 | 3.50 | .07 | .94 | .17 | 2.56 | .05 | .64 |
| Not used | .09 | 2.83 | .06 | 2.50 | .03 | .33 | .01 | .16 |
| Total | .76 | 14.58 | .48 | 9.22 | .28 | 5.36 | .21 | 3.92 |
| Marathon | | | | | | | | |
| Fiber products | 1.64 | 21.04 | 1.14 | 15.93 | .50 | 5.11 | -- | -- |
| Industrial fuel | 1.20 | 3.14 | 1.14 | 1.83 | .06 | 1.31 | .83 | 6.96 |
| Domestic fuel | 1.42 | 3.52 | 1.42 | 3.44 | -- | .08 | .44 | .61 |
| Miscellaneous[4] | 1.59 | 6.28 | -- | .28 | 1.59 | 6.00 | .16 | 1.52 |
| Not used | .02 | -- | -- | -- | .02 | -- | .02 | .03 |
| Total | 5.87 | 33.98 | 3.70 | 21.48 | 2.17 | 12.50 | 1.45 | 9.12 |
| Marquette | | | | | | | | |
| Domestic fuel | .26 | .29 | .26 | .29 | -- | -- | .11 | .12 |
| Miscellaneous[4] | .19 | .18 | -- | -- | .19 | .18 | -- | -- |
| Not used | .07 | .03 | .07 | .03 | -- | -- | .03 | .01 |
| Total | .52 | .50 | .33 | .32 | .19 | .18 | .14 | .13 |
| Monroe | | | | | | | | |
| Domestic fuel | .21 | 1.16 | .21 | 1.16 | -- | -- | .09 | .49 |
| Miscellaneous[4] | 2.42 | 5.79 | 1.45 | 3.26 | .97 | 2.53 | .62 | 1.39 |
| Not used | -- | .06 | -- | .01 | -- | .05 | -- | -- |
| Total | 2.63 | 7.01 | 1.66 | 4.43 | .97 | 2.58 | .71 | 1.88 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Portage | | | | | | | | |
| Fiber products | .35 | 2.97 | .09 | 2.61 | .26 | .36 | -- | -- |
| Industrial fuel | .03 | .13 | .02 | -- | .01 | .13 | .04 | 1.02 |
| Domestic fuel | 1.56 | 2.32 | 1.56 | 2.32 | -- | -- | .66 | .99 |
| Miscellaneous[4] | .75 | 2.38 | .03 | -- | .72 | 2.38 | .02 | .09 |
| Total | 2.69 | 7.80 | 1.70 | 4.93 | .99 | 2.87 | .72 | 2.10 |
| Waupaca | | | | | | | | |
| Fiber products | 1.05 | 11.42 | 1.05 | 11.42 | -- | -- | -- | -- |
| Charcoal | .02 | .58 | -- | -- | .02 | .58 | -- | -- |
| Industrial fuel | .29 | 5.06 | .01 | .02 | .28 | 5.04 | .24 | 3.89 |
| Domestic fuel | .17 | .36 | .17 | .36 | -- | -- | .07 | .16 |
| Miscellaneous[4] | .30 | 2.42 | -- | -- | .30 | 2.42 | .20 | 1.59 |
| Not used | .13 | .87 | .01 | -- | .12 | .87 | .01 | -- |
| Total | 1.96 | 20.71 | 1.24 | 11.80 | .72 | 8.91 | .52 | 5.64 |
| Waushara | | | | | | | | |
| Industrial fuel | -- | -- | -- | -- | -- | -- | .18 | .74 |
| Domestic fuel | .77 | 2.85 | .77 | 2.85 | -- | -- | .03 | .46 |
| Miscellaneous[4] | .46 | 1.63 | -- | -- | .46 | 1.63 | .13 | .01 |
| Not used | .04 | .06 | .03 | .03 | .01 | .03 | .01 | .01 |
| Total | 1.27 | 4.54 | .80 | 2.88 | .47 | 1.66 | .35 | 1.22 |
| Wood | | | | | | | | |
| Fiber products | 4.17 | 15.19 | 4.17 | 13.70 | -- | 1.49 | -- | -- |
| Industrial fuel | .46 | 1.42 | .46 | 1.42 | -- | -- | -- | .68 |
| Domestic fuel | .69 | .78 | .69 | .78 | -- | -- | .15 | .21 |
| Miscellaneous[4] | 3.12 | 8.71 | -- | -- | 3.12 | 8.71 | 2.00 | 6.03 |
| Not used | -- | -- | -- | -- | -- | -- | .13 | .12 |
| Total | 8.44 | 26.10 | 5.32 | 15.90 | 3.12 | 10.20 | 2.28 | 7.04 |
| All counties | | | | | | | | |
| Fiber products | 8.73 | 76.90 | 7.73 | 67.22 | 1.00 | 9.68 | -- | -- |
| Charcoal | .02 | .58 | -- | -- | .02 | .58 | -- | -- |
| Industrial fuel | 2.79 | 27.88 | 1.97 | 8.86 | .82 | 19.02 | 2.09 | 27.27 |
| Domestic fuel | 8.49 | 46.83 | 8.46 | 44.38 | .03 | 2.45 | 2.67 | 11.88 |
| Miscellaneous[4] | 11.38 | 49.95 | 2.03 | 7.13 | 9.35 | 42.82 | 3.24 | 14.53 |
| Not used | .88 | 6.73 | .18 | 2.57 | .70 | 4.16 | .59 | 3.01 |
| Total | 32.29 | 208.87 | 20.37 | 130.16 | 11.92 | 78.71 | 8.59 | 56.69 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

SOUTHWEST UNIT

| County and type of use | Wood residue: Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
|---|---|---|---|---|---|---|---|---|
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Buffalo | | | | | | | | |
| Fiber products | .05 | 9.77 | .05 | 7.69 | -- | 2.08 | -- | 1.53 |
| Industrial fuel | .04 | 7.96 | -- | 2.86 | .04 | 5.10 | .03 | 4.95 |
| Domestic fuel | .02 | 7.97 | .02 | 7.97 | -- | -- | -- | .39 |
| Miscellaneous[4] | -- | 4.48 | -- | .71 | -- | 3.77 | -- | 1.14 |
| Not used | -- | .25 | -- | -- | -- | .25 | -- | .18 |
| Total | .11 | 30.43 | .07 | 19.23 | .04 | 11.20 | .03 | 8.19 |
| Crawford | | | | | | | | |
| Fiber products | -- | 7.35 | -- | 4.53 | -- | 2.82 | -- | -- |
| Industrial fuel | -- | 6.98 | -- | 6.98 | -- | -- | -- | 4.20 |
| Domestic fuel | -- | 2.96 | -- | 2.96 | -- | -- | -- | .07 |
| Miscellaneous[4] | -- | 5.70 | -- | -- | -- | 5.70 | -- | 1.39 |
| Not used | -- | 1.55 | -- | .24 | -- | 1.31 | -- | .83 |
| Total | -- | 24.54 | -- | 14.71 | -- | 9.83 | -- | 6.49 |
| Dunn | | | | | | | | |
| Fiber products | .04 | 2.25 | .04 | 2.25 | -- | -- | .02 | .96 |
| Industrial fuel | .74 | 8.37 | .70 | 7.05 | .04 | 1.32 | .33 | 3.80 |
| Domestic fuel | 3.57 | 4.32 | 3.55 | 4.21 | .02 | .11 | .26 | .67 |
| Miscellaneous[4] | 2.42 | 6.45 | -- | -- | 2.42 | 6.45 | .25 | .06 |
| Not used | -- | .03 | -- | .03 | -- | -- | .98 | .26 |
| Total | 6.77 | 21.42 | 4.29 | 13.54 | 2.48 | 7.88 | 1.84 | 5.75 |
| Grant | | | | | | | | |
| Fiber products | -- | 7.70 | -- | 7.70 | -- | -- | -- | .15 |
| Domestic fuel | -- | 3.79 | -- | 3.79 | -- | -- | -- | .36 |
| Miscellaneous[4] | .01 | 9.80 | -- | 2.08 | .01 | 7.72 | -- | 5.15 |
| Not used | .01 | .41 | .01 | .14 | -- | .27 | .01 | .20 |
| Total | .02 | 21.70 | .01 | 13.71 | .01 | 7.99 | .01 | 5.86 |
| Iowa | | | | | | | | |
| Domestic fuel | -- | 4.43 | -- | 4.43 | -- | -- | -- | -- |
| Miscellaneous[4] | -- | 2.61 | -- | .01 | -- | 2.60 | -- | 1.85 |
| Not used | -- | -- | -- | -- | -- | -- | -- | .05 |
| Total | -- | 7.04 | -- | 4.44 | -- | 2.60 | -- | 1.90 |
| Lacrosse | | | | | | | | |
| Fiber products | -- | 29.88 | -- | 28.86 | -- | 1.02 | -- | -- |
| Industrial fuel | -- | 18.98 | -- | 2.69 | -- | 16.29 | -- | 13.34 |
| Domestic fuel | -- | 1.98 | -- | 1.98 | -- | -- | -- | .84 |
| Miscellaneous[4] | -- | 2.21 | -- | -- | -- | 2.21 | -- | .07 |
| Total | -- | 53.05 | -- | 33.53 | -- | 19.52 | -- | 14.25 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1/] | | Fine[2/] | | Bark[3/] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Lafayette | | | | | | | | |
| Domestic fuel | .02 | .05 | .02 | .05 | -- | -- | -- | .01 |
| Miscellaneous[4/] | .01 | .02 | -- | -- | .01 | .02 | -- | -- |
| Not used | -- | .01 | -- | -- | -- | .01 | .01 | .01 |
| Total | .03 | .08 | .02 | .05 | .01 | .03 | .01 | .02 |
| Pepin | | | | | | | | |
| Fiber products | .51 | 6.01 | .51 | 5.02 | -- | .99 | -- | -- |
| Charcoal | -- | 2.11 | -- | 2.11 | -- | -- | -- | .90 |
| Industrial fuel | .06 | -- | .06 | -- | -- | -- | .24 | 1.91 |
| Domestic fuel | .01 | 1.67 | .01 | 1.67 | -- | -- | -- | .61 |
| Miscellaneous[4/] | .32 | 4.14 | -- | -- | .32 | 4.14 | -- | .34 |
| Total | .90 | 13.93 | .58 | 8.80 | .32 | 5.13 | .24 | 3.76 |
| Pierce | | | | | | | | |
| Fiber products | -- | 1.60 | -- | 1.60 | -- | -- | -- | -- |
| Industrial fuel | -- | 1.58 | -- | .89 | -- | .69 | -- | .63 |
| Domestic fuel | .01 | 2.77 | .01 | 2.77 | -- | -- | .01 | .07 |
| Miscellaneous[4/] | .01 | 2.38 | -- | -- | .01 | 2.38 | -- | 1.55 |
| Not used | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | .02 | 8.33 | .01 | 5.26 | .01 | 3.07 | .01 | 2.25 |
| Richland | | | | | | | | |
| Fiber products | -- | 4.85 | -- | 4.85 | -- | -- | -- | -- |
| Industrial fuel | -- | .45 | -- | -- | -- | .45 | -- | -- |
| Domestic fuel | .09 | 2.81 | .06 | 2.81 | .03 | -- | .02 | .24 |
| Miscellaneous[4/] | -- | 4.02 | -- | -- | -- | 4.02 | -- | 3.02 |
| Total | .09 | 12.13 | .06 | 7.66 | .03 | 4.47 | .02 | 3.26 |
| St. Croix | | | | | | | | |
| Domestic fuel | -- | .06 | -- | .04 | -- | .02 | -- | .02 |
| Miscellaneous[4/] | -- | .07 | -- | .05 | -- | .02 | -- | .02 |
| Total | -- | .13 | -- | .09 | -- | .04 | -- | .04 |
| Sauk | | | | | | | | |
| Fiber products | -- | 1.75 | -- | 1.75 | -- | -- | -- | -- |
| Industrial fuel | -- | .36 | -- | -- | -- | .36 | -- | -- |
| Domestic fuel | .13 | 7.66 | .13 | 7.66 | -- | -- | -- | 1.59 |
| Miscellaneous[4/] | .08 | 13.10 | -- | 5.05 | .08 | 8.05 | .06 | 4.58 |
| Not used | -- | .01 | -- | -- | -- | .01 | -- | -- |
| Total | .21 | 22.88 | .13 | 14.46 | .08 | 8.42 | .06 | 6.17 |

(Table 28 continued on next page)

[1/] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2/] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3/] Does not include bark at pulp and flakeboard mills.

[4/] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue: Total | | Coarse[1/] | | Fine[2/] | | Bark[3/] | |
|---|---|---|---|---|---|---|---|---|
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Trempealeau | | | | | | | | |
| Fiber products | -- | 2.53 | -- | 2.53 | -- | -- | -- | -- |
| Industrial fuel | .05 | 7.12 | .04 | 3.48 | .01 | 3.64 | .01 | 4.07 |
| Domestic fuel | .03 | 8.87 | .03 | 8.87 | -- | -- | -- | 3.61 |
| Miscellaneous[4/] | .02 | 5.03 | .01 | .01 | .01 | 5.02 | -- | 1.06 |
| Not used | -- | -- | -- | -- | -- | -- | -- | .14 |
| Total | .10 | 23.55 | .08 | 14.89 | .02 | 8.66 | .01 | 8.88 |
| Vernon | | | | | | | | |
| Fiber products | -- | 3.25 | -- | 3.25 | -- | -- | -- | -- |
| Domestic fuel | .03 | 2.59 | .03 | 2.57 | -- | .02 | .01 | .94 |
| Miscellaneous[4/] | .01 | 3.05 | -- | -- | .01 | 3.05 | -- | 1.54 |
| Not used | .01 | .28 | -- | -- | .01 | .28 | -- | -- |
| Total | .05 | 9.17 | .03 | 5.82 | .02 | 3.35 | .01 | 2.48 |
| All counties | | | | | | | | |
| Fiber products | .60 | 76.94 | .60 | 70.03 | -- | 6.91 | .02 | 2.64 |
| Charcoal | -- | 2.11 | -- | 2.11 | -- | -- | -- | .90 |
| Industrial fuel | .89 | 51.80 | .80 | 23.95 | .09 | 27.85 | .61 | 32.90 |
| Domestic fuel | 3.91 | 51.93 | 3.86 | 51.78 | .05 | .15 | .30 | 9.42 |
| Miscellaneous[4/] | 2.88 | 63.06 | .01 | 7.91 | 2.87 | 55.15 | .31 | 21.77 |
| Not used | .02 | 2.54 | .01 | .41 | .01 | 2.13 | 1.00 | 1.67 |
| Total | 8.30 | 248.38 | 5.28 | 156.19 | 3.02 | 92.19 | 2.24 | 69.30 |
| SOUTHEAST UNIT | | | | | | | | |
| Brown | | | | | | | | |
| Fiber products | .20 | 1.30 | .20 | 1.30 | -- | -- | -- | -- |
| Industrial fuel | -- | .21 | -- | .08 | -- | .13 | -- | .06 |
| Miscellaneous[4/] | .12 | .76 | -- | -- | .12 | .76 | .07 | .54 |
| Total | .32 | 2.27 | .20 | 1.38 | .12 | .89 | .07 | .60 |
| Calumet | | | | | | | | |
| Domestic fuel | .01 | .19 | .01 | .19 | -- | -- | -- | .08 |
| Miscellaneous[4/] | .01 | .11 | -- | -- | .01 | .11 | -- | -- |
| Total | .02 | .30 | .01 | .19 | .01 | .11 | -- | .08 |
| Columbia | | | | | | | | |
| Domestic fuel | .02 | .19 | .02 | .19 | -- | -- | -- | .09 |
| Miscellaneous[4/] | -- | .09 | -- | -- | -- | .09 | -- | -- |
| Not used | -- | .02 | -- | -- | -- | .02 | -- | -- |
| Total | .02 | .30 | .02 | .19 | -- | .11 | -- | .09 |

(Table 28 continued on next page)

[1/] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2/] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3/] Does not include bark at pulp and flakeboard mills.

[4/] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Dane | | | | | | | | |
| Industrial fuel | -- | .80 | -- | .80 | -- | -- | -- | .43 |
| Domestic fuel | .08 | 1.09 | .08 | 1.09 | -- | -- | .03 | .37 |
| Miscellaneous[4] | .05 | 1.09 | -- | -- | .05 | 1.09 | -- | -- |
| Total | .13 | 2.98 | .08 | 1.89 | .05 | 1.09 | .03 | .80 |
| Dodge | | | | | | | | |
| Domestic fuel | .01 | .07 | .01 | .07 | -- | -- | -- | .01 |
| Miscellaneous[4] | -- | .04 | -- | -- | -- | .04 | -- | .03 |
| Not used | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | .01 | .11 | .01 | .07 | -- | .04 | -- | .04 |
| Door | | | | | | | | |
| Domestic fuel | .24 | .15 | .24 | .15 | -- | -- | .07 | .05 |
| Miscellaneous[4] | .13 | .08 | .03 | .04 | .10 | .04 | .01 | .02 |
| Not used | .04 | .05 | -- | -- | .04 | .05 | -- | -- |
| Total | .41 | .28 | .27 | .19 | .14 | .09 | .08 | .07 |
| Fond du Lac | | | | | | | | |
| Domestic fuel | .01 | .02 | .01 | .02 | -- | -- | -- | .02 |
| Miscellaneous[4] | -- | .04 | -- | .01 | -- | .03 | -- | .01 |
| Total | .01 | .06 | .01 | .03 | -- | .03 | -- | .03 |
| Green | | | | | | | | |
| Industrial fuel | -- | .13 | -- | .13 | -- | -- | -- | -- |
| Domestic fuel | -- | .62 | -- | .62 | -- | -- | -- | .33 |
| Miscellaneous[4] | -- | .47 | -- | -- | -- | .47 | -- | -- |
| Not used | -- | .26 | -- | .19 | -- | .07 | -- | .08 |
| Total | -- | 1.48 | -- | .94 | -- | .54 | -- | .41 |
| Green Lake | | | | | | | | |
| Domestic fuel | -- | .07 | -- | .07 | -- | -- | -- | -- |
| Miscellaneous[4] | -- | .04 | -- | -- | -- | .04 | -- | -- |
| Not used | -- | .01 | -- | .01 | -- | -- | -- | .03 |
| Total | -- | .12 | -- | .08 | -- | .04 | -- | .03 |
| Jefferson | | | | | | | | |
| Domestic fuel | -- | .10 | -- | .10 | -- | -- | -- | .04 |
| Miscellaneous[4] | -- | .06 | -- | -- | -- | .06 | -- | -- |
| Not used | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | -- | .16 | -- | .10 | -- | .06 | -- | .04 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1] | | Fine[2] | | Bark[3] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Kewaunee | | | | | | | | |
| Fiber products | .47 | 7.14 | .47 | 7.14 | -- | -- | -- | -- |
| Industrial fuel | .08 | 1.26 | .02 | .38 | .06 | .88 | .15 | 1.90 |
| Domestic fuel | .28 | .43 | .28 | .43 | -- | -- | .09 | .18 |
| Miscellaneous[4] | .39 | 3.76 | -- | -- | .39 | 3.76 | .04 | 1.11 |
| Not used | -- | -- | -- | -- | -- | -- | -- | .16 |
| Total | 1.22 | 12.59 | .77 | 7.95 | .45 | 4.64 | .28 | 3.35 |
| Manitowoc | | | | | | | | |
| Fiber products | .07 | .30 | .07 | .30 | -- | -- | -- | -- |
| Industrial fuel | -- | 3.18 | -- | 1.22 | -- | 1.96 | -- | .89 |
| Domestic fuel | .22 | .51 | .22 | .51 | -- | -- | .04 | .08 |
| Miscellaneous[4] | .48 | 9.08 | .20 | 5.44 | .28 | 3.64 | .13 | 2.56 |
| Total | .77 | 13.07 | .49 | 7.47 | .28 | 5.60 | .17 | 3.53 |
| Outagamie | | | | | | | | |
| Fiber products | 1.62 | 8.54 | 1.62 | 8.54 | -- | -- | -- | -- |
| Industrial fuel | .73 | .24 | .73 | .11 | -- | .13 | .99 | 2.59 |
| Domestic fuel | .09 | .38 | .09 | .38 | -- | -- | .04 | .15 |
| Miscellaneous[4] | 1.42 | 5.18 | -- | -- | 1.42 | 5.18 | -- | 1.09 |
| Not used | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 3.86 | 14.34 | 2.44 | 9.03 | 1.42 | 5.31 | 1.03 | 3.83 |
| Ozaukee | | | | | | | | |
| Domestic fuel | -- | .03 | -- | .03 | -- | -- | -- | -- |
| Miscellaneous[4] | -- | .02 | -- | -- | -- | .02 | -- | -- |
| Not used | -- | -- | -- | -- | -- | -- | -- | .01 |
| Total | -- | .05 | -- | .03 | -- | .02 | -- | .01 |
| Racine | | | | | | | | |
| Domestic fuel | -- | .35 | -- | .35 | -- | -- | -- | -- |
| Miscellaneous[4] | -- | .20 | -- | -- | -- | .20 | -- | -- |
| Not used | -- | -- | -- | -- | -- | -- | -- | .15 |
| Total | -- | .55 | -- | .35 | -- | .20 | -- | .15 |
| Rock | | | | | | | | |
| Industrial fuel | -- | .07 | -- | .07 | -- | -- | -- | .03 |
| Domestic fuel | -- | 1.29 | -- | 1.29 | -- | -- | -- | .55 |
| Miscellaneous[4] | -- | .79 | -- | -- | -- | .79 | -- | -- |
| Total | -- | 2.15 | -- | 1.36 | -- | .79 | -- | .58 |

(Table 28 continued on next page)

[1] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3] Does not include bark at pulp and flakeboard mills.

[4] Livestock bedding, mulch, poultry litter, etc.

(Table 28 continued)

| County and type of use | Wood residue | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | | Coarse[1/] | | Fine[2/] | | Bark[3/] | |
| | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| Sheboygan | | | | | | | | |
| Industrial fuel | .01 | .34 | .01 | .23 | -- | .11 | -- | .10 |
| Domestic fuel | .09 | .32 | .09 | .32 | -- | -- | -- | -- |
| Miscellaneous[4/] | .04 | .16 | -- | .05 | .04 | .11 | -- | -- |
| Not used | .03 | .51 | .01 | .24 | .02 | .27 | .04 | .26 |
| Total | .17 | 1.33 | .11 | .84 | .06 | .49 | .04 | .36 |
| Walworth | | | | | | | | |
| Domestic fuel | -- | .23 | -- | .23 | -- | -- | -- | .08 |
| Miscellaneous[4/] | -- | .13 | -- | -- | -- | .13 | -- | -- |
| Not used | -- | -- | -- | -- | -- | -- | -- | .01 |
| Total | -- | .36 | -- | .23 | -- | .13 | -- | .09 |
| Washington | | | | | | | | |
| Domestic fuel | .01 | .45 | .01 | .45 | -- | -- | -- | .20 |
| Miscellaneous[4/] | -- | .25 | -- | -- | -- | .25 | -- | -- |
| Not used | -- | .02 | -- | -- | -- | .02 | -- | -- |
| Total | .01 | .72 | .01 | .45 | -- | .27 | -- | .20 |
| Waukesha | | | | | | | | |
| Domestic fuel | -- | 2.89 | -- | 2.89 | -- | -- | -- | 1.23 |
| Miscellaneous[4/] | -- | 1.68 | -- | -- | -- | 1.68 | -- | -- |
| Total | -- | 4.57 | -- | 2.89 | -- | 1.68 | -- | 1.23 |
| Winnebago | | | | | | | | |
| Domestic fuel | .05 | .85 | .05 | .85 | -- | -- | .01 | .37 |
| Miscellaneous[4/] | .02 | .50 | -- | -- | .02 | .50 | -- | -- |
| Total | .07 | 1.35 | .05 | .85 | .02 | .50 | .01 | .37 |
| All counties | | | | | | | | |
| Fiber products | 2.36 | 17.28 | 2.36 | 17.28 | -- | -- | -- | -- |
| Industrial fuel | .82 | 6.23 | .76 | 3.02 | .06 | 3.21 | 1.14 | 6.00 |
| Domestic fuel | 1.11 | 10.23 | 1.11 | 10.23 | -- | -- | .28 | 3.83 |
| Miscellaneous[4/] | 2.66 | 24.53 | .23 | 5.54 | 2.43 | 18.99 | .25 | 5.36 |
| Not used | .07 | .87 | .01 | .44 | .06 | .43 | .04 | .70 |
| Total | 7.02 | 59.14 | 4.47 | 36.51 | 2.55 | 22.63 | 1.71 | 15.89 |
| Total Wisconsin | | | | | | | | |
| Fiber products | 66.85 | 393.35 | 61.40 | 341.24 | 5.45 | 52.11 | .07 | 3.49 |
| Charcoal | .07 | 12.49 | .05 | 10.86 | .02 | 1.63 | .02 | 4.43 |
| Industrial fuel | 40.02 | 256.90 | 20.84 | 104.59 | 19.18 | 152.31 | 30.06 | 179.29 |
| Domestic fuel | 35.14 | 154.92 | 32.73 | 143.76 | 2.41 | 11.16 | 9.46 | 36.18 |
| Miscellaneous[4/] | 41.52 | 191.38 | 2.46 | 21.78 | 39.06 | 169.60 | 4.60 | 47.23 |
| Not used | 5.25 | 17.09 | 1.87 | 8.28 | 3.38 | 8.81 | 3.49 | 8.42 |
| Total | 188.85 | 1,026.13 | 119.35 | 630.51 | 69.50 | 395.62 | 47.70 | 279.04 |

[1/] Suitable for chipping such as slabs, edgings, veneer cores, etc.

[2/] Not suitable for chipping such as sawdust, veneer clippings, etc.

[3/] Does not include bark at pulp and flakeboard mills.

[4/] Livestock bedding, mulch, poultry litter, etc..

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Wisconsin timber industry—an assessment of timber output trends. Resour. Bull. NC-90. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station; 1985. 61 p.

Discusses recent Wisconsin forest industry trends; production and receipts of pulpwood, saw logs, and veneer logs; and production of fuelwood and other timber products in 1981. Reports on logging residue, on wood and bark residue generated at primary wood-using mills, and on disposition of this mill residue.

KEY WORDS: Pulpwood, saw logs, fuelwood, veneer logs, residue.